

COLLEGE OF ENGINEERING

FALL 2019 FACULTY & STAFF RETREAT

WELCOME TO THE 2019-20 AY!

AUGUST 22, 2019

AGENDA - FALL' 19 FACULTY & STAFF RETREAT



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- 1:15-1:35 Dr. Hector Ochoa, Provost & Senior Vice President
- **1:35-2:15** State of the College Presentation Dean Olevsky
- **2:15-2:20** Approval of 4/23/2019 CoE Faculty Meeting Minutes
- 2:20-2:50 2019-20 College of Engineering Committee Elections
- 2:50-3:00 Break
- 3:00-3:30 Padma Nagappan, Science/Research Writer, Strategic Communications & Public Affairs
- 3:30-4:00 Dr. Radmila Prislin, AVP for Academic Affairs Resource
- **4:00-4:10** Kate Carinder, Sr. Director of Development for Engineering, University Relations & Development
- **4:10-4:25** Kara Peterson, Design Administrator, Project Management
- **4:25-4:30** Closing Remarks/Adjournment Dean Olevsky



WELCOME REMARKS

COE - SECRETARY



- College of Engineering Secretary: (is elected at the first meeting of the academic year. The tenure of the Secretary is for (2) years and the term begins upon election)
 - S. Bhattacharjee (ME) (term ends 5/19)



INTRODUCTION OF NEW FACULTY & STAFF

MEET OUR NEW AE FACULTY





Dr. Pavel Popov

Ph.D., Cornell University, Ithaca, New York Assistant Professor of Aerospace Engineering

Previous Position

Research Scientist
University of Illinois at Urbana-Champaign

Areas of Specialization

Computational fluid dynamics and combustion; combustion-acoustic instability; rocket propulsion; plasma-combustion interactions; turbulent reactive flows; high-performance computing; stochastic methods and machine learning methods for reactive flows.

MEET OUR NEW CCEE FACULTY





Dr. Reza Akhavian

Ph.D., University of Central Florida, Orlando, FL Assistant Professor of Civil, Construction and Environmental Engineering

Previous Position

Assistant Professor, Construction Management Program, School of Engineering California State University East Bay

Areas of Specialization

Construction engineering and management; data analytics; automation and robotics; artificial intelligence (AI); cyberphysical systems (CPS); internet-of-things (IoT); discrete-event simulation (DES); safety and productivity of construction project operations; and sustainability and resiliency of the built environment.

MEET OUR NEW CCEE FACULTY





Dr. Marta Miletić

Ph.D., Kansas State University, Manhattan, KS Assistant Professor of Civil, Construction and Environmental Engineering

Previous Position

Assistant Professor, Department of Civil Engineering Auburn University

Areas of Specialization

Strain localization in geo-materials; computational modeling of pressure sensitive materials; multiscale and multiphysics processes in geomechanics; soil improvement (fibers, (bio)polymers, geosynthetics, industrial waste products); soil-structure interaction; thermally active geosystems; resilient and sustainable infrastructure materials; advanced geotechnical laboratory testing.

MEET OUR NEW ECE FACULTY





Dr. Junfei Xie

Ph.D., University of North Texas,
Denton, TX
Assistant Professor of Electrical and Computer
Engineering

Previous Position

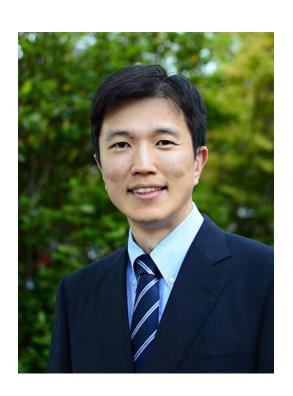
Assistant Professor, Department of Computer Science
Texas A&M University- Corpus Christi

Areas of Specialization

Large-scale dynamic system design and control; spatiotemporal data analysis; unmanned aerial systems; airborne networks; air traffic flow management; complex information system.

MEET OUR NEW ME FACULTY





Dr. Sungbum (John) Kang

Ph.D., Georgia Institute of Technology, Atlanta, GA Assistant Professor of Mechanical Engineering

Previous Position

Resolution Enhancement Technology Design Engineer Intel Corporation

Areas of Specialization

Optical Metrology; Mechatronics; Industrial Automation; Digital Fringe Projection; Moiré Interferometry; Phase Measuring Deflectometry; Machine Vision; Machine Learning; Optical Proximity Correction; Metrology Applications for Additive/Semiconductor/LCD/Solar-Cell Manufacturing.

MEET OUR NEW ME FACULTY





Dr. Sung-Yong (Sean) Park

Ph.D., University of California at Los Angeles Los Angeles, CA Assistant Professor of Mechanical Engineering

Previous Position

Assistant Professor National University of Singapore, Singapore

Areas of Specialization

Optofluidic solar power technologies (concentrated solar energy, solar indoor lighting, and solar spectrum splitting) for sustainable buildings; tribo-electric energy harvesting from waste water sources (e.g. raindrop, waterfall, ocean wave); smartphone-integrated environmental monitoring for on-site and real-time air/water quality detection; lab-on-a-smartphone (LOS) as an optofluidic portable device for automated sample preparation and on-chip microscopic detection.

MEET OUR NEW ME FACULTY





Dr. Yang Yang (Spring 2020)
Ph.D., Wuhan University,
Wuhan, China
Joint Ph.D. student, University of California at Los
Angeles
Assistant Professor of Mechanical Engineering

Previous Position
Postdoctoral Research Associate
University of Southern California, Los Angeles, CA

Areas of Specialization

Bioinspired 3D printing; Ceramic 3D printing; 3D printing of micro-scale superhydrophobic structure; Novel applications of 3D printing; Mechanism of materials and structures; Stereolithography; Piezoelectric/Thermoelectric Energy harvesting device; Wearable Sensor; 4D Printing; High Dielectric Nanocomposites; Self-healing Materials.

MEET OUR NEW STAFF





Nicole Brokaw

Previous Position:

Administrative Support Coordinator for CCEE

Position

Department Coordinator for Aerospace Engineering

WELCOME NEW INTERIM ASSOCIATE DEANS





Dr. Temesgen GaromaInterim Associate Dean, Graduate Studies & Research

Professor
Blasker Chair in Environmental Engineering
Director of the Environmental Engineering Program



Dr. Yusuf OzturkInterim Associate Dean, Undergraduate Studies

Professor
Electrical & Computer Engineering

FACULTY AWARD



NORTHROP GRUMMAN

2018-19 Excellence in Teaching Award



DR. HECTOR OCHOA PROVOST & SENIOR VICE PRESIDENT



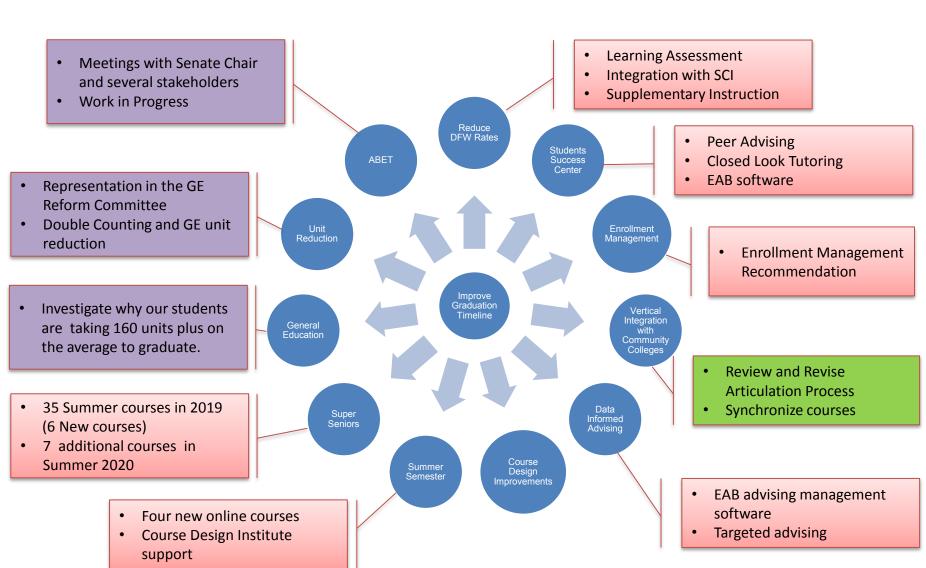
STATE OF THE COLLEGE



UNDERGRADUATE PROGRAM UPDATE

Undergraduate Study Projects and Progress

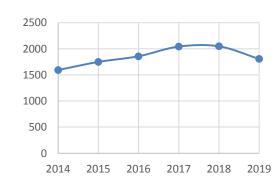




ENROLLMENT TRENDS BY MAJOR (FALL SEMESTER) (FTES)



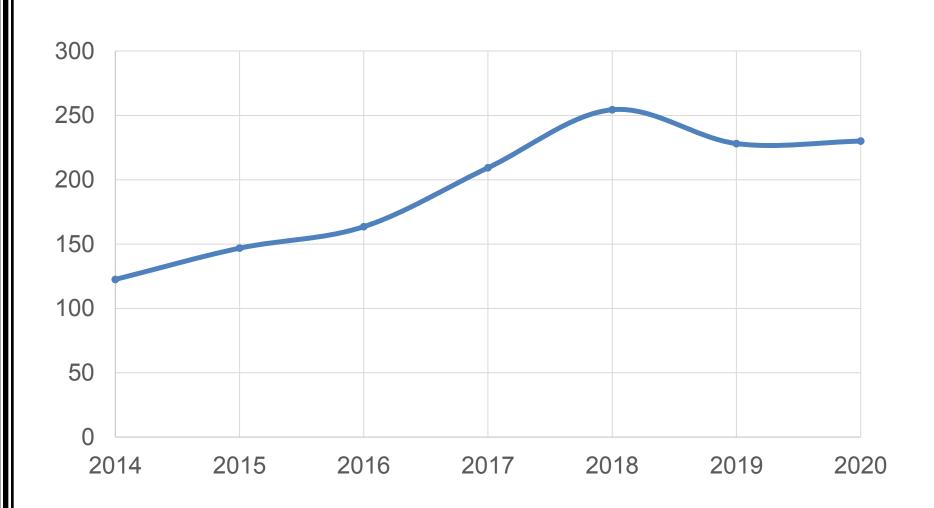
Year	Aerospace	Civil	СОМРЕ	Construction	Electrical	Engineering	Environmental	Mechanical	Grand Total
2014	225.5	191.3	143	100.3	329.5	12.2	50.9	540.7	1593.4
2015	220.6	243.5	155.9	98.6	352.9	13.7	63.6	599.4	1748.2
2016	248.6	244	206.1	100.5	338.1	13.1	68	638.3	1856.7
2017	304.2	257.4	217.8	82.7	389.3	16.3	67.9	706.6	2042.2
2018	304.7	286.6	202	90.9	356.4	21.1	82.1	703.3	2047.1
2019	282.3	267.5	179.5	73.8	303.0	8.9	69.7	664.8	1850



There is a decline in engineering student counts due to the changes in admission process and increase in Summer Program. All majors are effected with Construction and Electrical Engineering leading with 22% and 18% decline respectively.

SUMMER ENROLLMENT (FTES)





SUMMER 2019



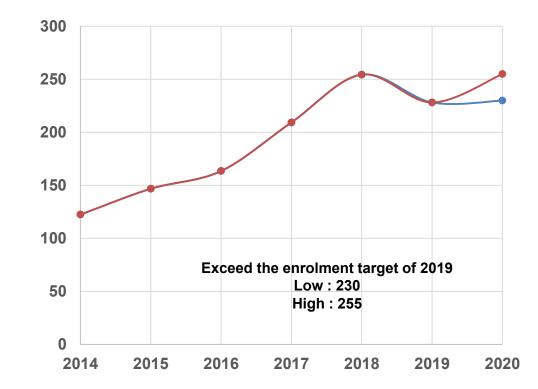
- We offered 35 Summer Courses
- Introduced 6 new courses in the Summer program (EE 300, COMPE 475, COMPE 470, CIVE 521, ENVE 355, ME 202)
- Offered 3 new online courses (EE300, COMPE 375, COMPE 470)
- FTES dropped to 228.1 from all time high 254.4 (Summer 2018)
- Issues:
 - Enrollment decline in Engineering
 - Students are dropped from Summer Session 2 at the end of spring semester for lack of prerequisite

Year	FTES	Percent Change
2015	146.8	19.84%
2016	163.5	11.38%
2017	209.3	28.01%
2018	254.4	21.55%
2019	228.1	-10.34%

SUMMER 2020



- 7 New summer courses
 - AE 280
 - AE 340
 - COMPE 270 (Hybrid)
 - EE210
 - EE410 (Online)
 - ME 555
 - ME 496
- · Explore possibility of offering
 - AF341
 - EE204
 - CIVE 220



- Total number of courses in Summer 2020 program 42+
- Introduce Summer Session 2 as a separate semester (increase number of semesters to 5, Winter, Spring, Summer 1, Summer 2, Fall)

NEW COURSES IN SUMMER 2020



Course	Fall 2018	Spring 2019	Fall 2019
AE 280	354	313	268
AE 340	373	230	270
AE 341	253	169	220
CIV E0220	238		235
COMPE 270	105	77	84
EE204	170	186	145
EE210	112	93	61
EE410	103	115	71
ME 555	106	183	93
ME 496			58

Courses that have a high demand and/or high impact are elected. High impact courses are the courses that effect graduation timeline (courses that are being explored for summer offering are highlighted in yellow)

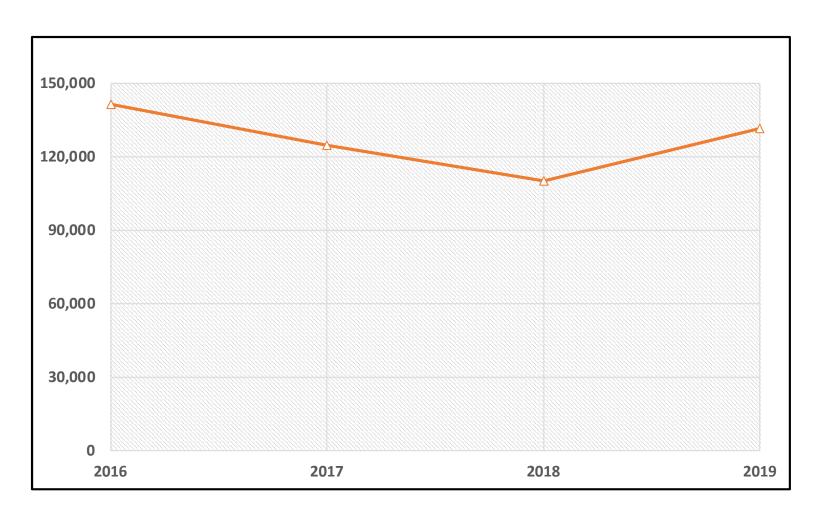


GRADUATE STUDIES & RESEARCH PROGRAM UPDATE

RESEARCH AWARDS PER ENGINEERING FACULTY



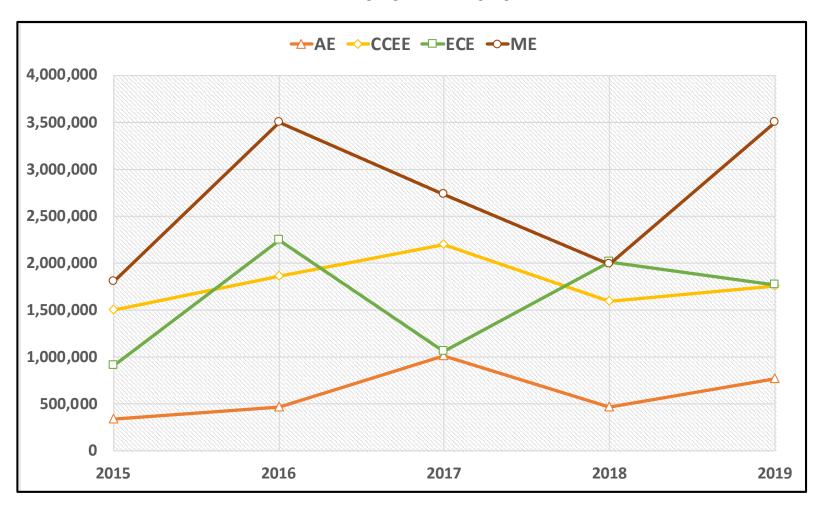
Total Dollars Awarded per TT Faculty for FY 2016 - FY 2019



RESEARCH AWARDS TO ENGINEERING FACULTY



Contributions of Departments to Total Dollars Awarded for FY 2015 - FY 2019



RESEARCH AWARDS TO ENGINEERING FACULTY



Average Number of Proposal Submission by TT Faculty Per Year for FY 2015 - FY 2019

Average Number of Proposals by TT Faculty / year	Number of Assistant Professors	Number of Associate Professors	Number of Professors	Total Number TT Faculty
0 to 1	3	3	10	16
1 to 3	12	5	2	19
3 to 5	7	2	9	18
5 to 7.5	0	1	3	4
7.5 to 10	0	0	2	2

Total = 59

RESEARCH AWARDS TO ENGINEERING FACULTY



Average Total Dollars Awarded to TT Faculty Per Year for FY 2015 - FY 2019

Average Total Dollars Awarded to TT Faculty /year	Number of Assistant Professors	Number of Associate Professors	Number of Professors	Total Number TT Faculty
0 to 10k	12	4	9	25
10 to 50k	4	2	1	7
50 to 100k	2	1	4	7
100 to 250k	4	4	5	13
250 to 500k	0	0	4	4
500 to 750k	0	0	3	3

ENGINEERING FACULTY PUBLICATION RECORDS



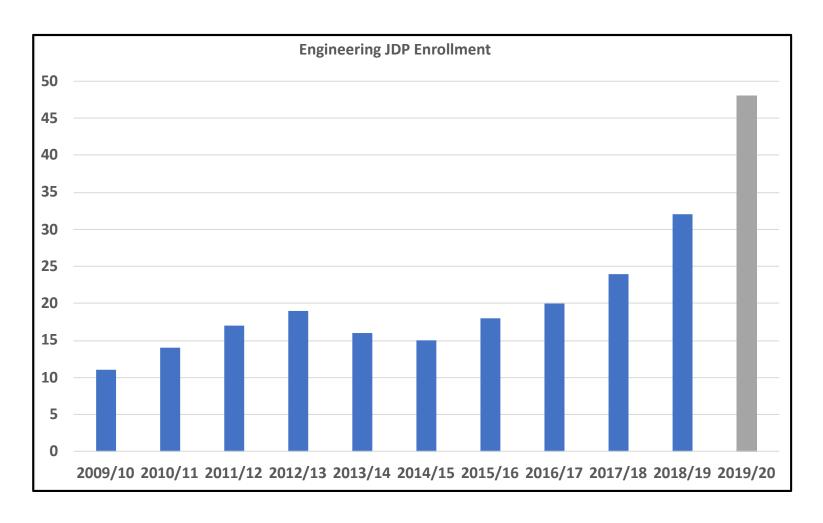
Average Number of Peer-reviewed Journal Papers by TT Faculty Per Year for 2016 - 2018

Average Number of Peer-reviewed Journal Papers by TT Faculty /year	Number of Assistant Professors	Number of Associate Professors	Number of Professors	Total Number TT Faculty
0 to 1	3	1	4	8
1 to 3	10	5	6	21
3 to 5	6	5	7	18
5 to 10	3	0	6	9
10 to 16	0	0	3	3

Total = 59

JDP UPDATES





JDP UPDATES



August 1, 2019

To: Eugene Olevsky, Dean

College of Engineering

From: S. Hector Ochoa, Provost & Senior Vice President

Subject: JDP Engineering Admissions and Student Support

- In the absence of additional funds, the limited central resources currently available to cover the basic and non-resident tuition may require reduced future admissions until a steady state with funding is reached. Should the JDP Engineering requests for future admissions exceed the central resources available for basic and non-resident tuition, the College will be able to admit only those additional students whose basic and non-resident tuition is covered from the College's internal funds.
- College of Engineering is responsible for payments of UCSD fees for all JDP Engineering students.
- College of Engineering is responsible for identifying sources of funding for each
 doctoral student's stipend. Stipends not covered by existing sources (e.g., start-ups,
 grants, University Grant Fellowships) are the responsibility of the College, students, or
 both.

JDP UPDATES



The Estimated Annual Cost for a JDP Student Supported with Grant through SDSURF

JDP Student Estimated Costs of Attendance						
	Residents	Nonresidents				
Basic Tuition	\$5,932	\$5,932				
Nonresident Tuition	\$0	\$4,752				
Salary	\$22,920	\$22,920				
Benefits	\$5,272	\$5,272				
UCSD Fee	\$5,500	\$5,500				
TOTAL (without F&A)	\$39,624	\$44,376				
F&A (excluding tuition and fees)	\$14,942	\$14,942				
TOTAL (with F&A)*	\$54,565	\$59,317				

^{*} If hired through SDSU, the total cost increases by about \$10k

MS PROGRAMS UPDATES



Program Graduates/Completers for Last Three-Year

Master of Science Degrees in	2015- 2016	2016- 2017	2017- 2018	Three-year average
Aerospace Engineering	5	10	14	10
Civil Engineering	34	20	26	27
Electrical and Computer Engineering	51	99	65	72
Mechanical Engineering	22	27	28	26
Interdisciplinary Master of Engineering	14	11	7	11
All Masters Programs in the COE	126	167	140	144



College of Engineering

COMMUNITY & COMMUNICATION



College of Engineering

FEMINEERTM PROGRAM

SDSU COLLEGE OF ENGINEERING FEMINEERTM PROGRAM



- ☐ **Mission:** To inspire and empower K-12 female students to pursue STEM (Science, Technology, Engineering, and Math) in their education and future careers
- Year-round experience: Femineer™ courses offered during or after school, Femineer™ Summit held in late Spring semester, Girls Day Out Saturday STEM events during Fall/Spring, Girls STEM Summer Camps



Over 200 MS & HS Femineer™ Students, teachers, SDSU alumni, industry & community partners, and SDSU Faculty & Staff attended our SDSU's First Annual Femineer™ Summit (May 23, 2019)

SDSU COLLEGE OF ENGINEERING FEMINEERTM PROGRAM



- □ Benefits of having the Femineer[™] Program at SDSU
 - □ Students feel connected to our University, our College, its faculty & staff, and our students
 - □ Is designed for girls to develop and use skills that will be directly useful in college not just exposure to an engineering program
 - □ Connect and engage SDSU alumni and local industry partners



SDSU COLLEGE OF ENGINEERING FEMINEERTM PROGRAM



- □ SDSU is 1 of 3 universities that offer the Femineer™ Program
- Since 2017, SDSU's College of Engineering has adopted 6 schools to start the Femineer™ Program
- 8 schools in San Diego County offering the program for 2019-2020
 - 111 schools nationwide
 - 2,700+ students served
- □ Summer 2019, 17 Femineer[™] teachers trained at SDSU
- Summer 2019 Offered all 3 Femineer™ course teacher trainings (Creative Robotics, Wearable Technology, and Pi Robotics)





College of Engineering

MESA PROGRAM



Luis E. Topete Director San Diego County

Jeanette Espino Director Imperial Valley County

- **STEM Project-based learning**
- **STEM Competitions**
- **Career and College Exploration**
- **Industry Exposure**
- **Teacher Professional Development**
- **Parent Education Programs**
- **Undergraduate Mentors**
- Approx. 2,000 diverse students served









Natasha Celise
Director
San Diego State University

- First Year Course
- Tutoring & Academic Workshops
- Scholarships
- Alumni Engagement
- Shadow Day
- Research Academies
- Leadership Conference
- Industry Training Academy

250 diverse undergrads served







A few supporters:











How MESA contributes to COE MESA



Alumni & Industry Relationships

- Mentors, Panelists, Presenters
- Donors (\$50K from Alex Mora, Alum, endowed scholarship)
- ☐ Shadow Day 191 students/24 companies participated in 2018, 49%, of college students were non-MESA



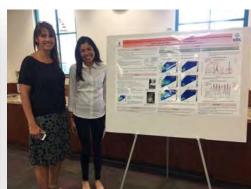
Community

- Relationships with San Diego County School Districts & STEM community
- ☐ Pre College Visits & Community College Engagement
- □ SDSU Compact Success (500+ students) & SDSU Compact Middle School (200+ students) STEM Engagement
- □ Facilitates COE Tutoring program



Faculty

- Letters of Support/Collaboration
- ☐ Identify/Recruit undergraduates for research opportunity within COF
- ☐ Research Lab Tours
- ☐ Research Academy & Jr. Research Academy
- Opportunities for faculty to share research w/undergrads





College of Engineering

TROOPS TO ENGINEERS



SAN DIEGO STATE UNIVERSITY Troops to Engineers

Brittany Field
Troops to Engineers
Program Coordinator
SDSU Alumna BA in
Communication 2015
Navy Veteran
619-594-8549
bfield@sdsu.edu



Elisa East
Troops to Engineers
Program Coordinator
SDSU Alumna BA in
Psychology 2014
SDSU Alumni MA in
Education 2018
Army Veteran
619-594-0383
ceast01@sdsu.edu





Program Overview

Mission

SDSU Troops to Engineers Program (T2E) supports the career development of student veterans majoring in Engineering and Computer Science.

Program Goal

Place 100% of program participants into a paid internship while enrolled and into a full-time position upon graduation.

How We Do It

We collaborate with Hiring Managers at engineering companies in San Diego to create and provide student veterans with:

- Hiring Events
- Networking Mixers
- Tours of Engineering Companies
- Employer-led Skills Training
- Placement Assistance
 - Paid Internships
 - Full-time Jobs

How YOU can support our veteran engineering students!

- Distribute Troops to Engineers promotion flyers and verbally promote the program, as appropriate to your veteran students.
- Share any engineering company contacts with coordinators to expand their connections in San Diego.
- Communicate any challenges or advantages to teaching student-veterans.
- Complete Military Ally Training to learn more about veteran student unique experience. Please email Todd Kennedy to register. Tkennedy@sdsu.edu



T2E has been successful for the last **8 years** and continues to thrive each year

- **397** students have participated in the program.
- Placement success rate of 100%.
- This academic year we've connected with 3,700+ community members at 28 outreach events.
- 174 students participated in professional development events:
 - Recruiting: **39**
 - Industry tours: 83
 - Resume building: 52
- Partnered with 46 engineering companies.
- Received \$386,200 in grant funding.



COE IMPORTANT DATES TO REMEMBER

FALL 2019 COE IMPORTANT DATES TO REMEMBER



- Aug 23, 2019 (Fri) 6:30pm-8:30pm CoE Gathering Tom Ham's Lighthouse
- Oct 8, 2019 (Tue) 11:00am-12:00pm CoE Faculty Mtg Bioscience Gold Auditorium
- Oct 10, 2019 (Thu) 1:30pm-2:30pm CoE Staff Mtg Engineering Dean's Conf. Room
- Oct 23, 2019 (Wed) 8:00am-4:30pm Provost Ochoa CoE Visit Location TBD
- Nov 15, 2019 (Fri) 8:30am-1:00pm Engineering Dean's Advisory Board Mtg Templo Mayor Conf. Room, Aztec Student Union
- Dec 3, 2019 (Tue) 11:00am-12:00pm CoE Faculty Mtg Bioscience Gold Auditorium
- Dec 5, 2019 (Thu) 1:30pm-2:30pm CoE Staff Mtg Engineering Dean's Conf. Room
- Dec 10, 2019 (Tue) 11:30am-1:00pm CoE Holiday Luncheon Cuicacalli Suites,
 The Garden
- May 6, 2020 (Wed) 8:30am-1:00pm Engineering Dean's Advisory Board Mtg –
 Templo Mayor Conf. Room, Aztec Student Union
- May 6, 2020 (Wed) 1:30pm-4:00pm 2019 Engineering Design Day Montezuma Hall



APPROVAL OF 4/23/2019 FACULTY MINUTES



ELECTIONS & REVIEW OF 2019 — 2020 COLLEGE OF ENGINEERING COMMITTEES

COE - SECRETARY



- College of Engineering Secretary: (is elected at the first meeting of the academic year. The tenure of the Secretary is for (2) years and the term begins upon election)
 - S. Bhattacharjee (ME) (term ends 5/19)

UNIVERSITY PROMOTIONS AND TENURE REVIEW PANEL (UPTRP)



- College of Engineering Representative to UPTRP: (is a tenured full professor elected by the probationary and tenured members of the faculty for a two-year term. At the May faculty meeting of each odd year, the College's current representative shall conduct, by democratic process and secret ballot, the election of the faculty member to represent the College for the next two academic years).
 - UPTRP Representative: J. Valdes (CCEE) elected to UPTRP Committee (term ends 5/19)

COE - PARLIAMENTARIAN



 CONSTITUTION AND BYLAWS Committee: (members elected by respective Departments [AE & CCEE terms expire in January of even years; ECE & ME terms expire in January of odd years] and serve 2-year terms; Chair is the College Parliamentarian and is elected by the faculty at-large)

_	Y. Ozturk (ECE) – Parliamentarian & Chair	(term ends 5/19)
_	B. Narang (AE)	(term ends 1/20)
_	T. Mitropoulos (CCEE)	(term ends 1/20)
_	M. Gupta (ECE)	(term ends 1/19)
_	S. Bhattacharjee (ME)	(term ends 1/19)

COE COMMITTEES 2019 - 2020



• <u>PERSONNEL TENURE AND PROMOTION</u>: (members elected by respective Departments in September [AE&ME in odd years; CCEE&ECE in even years] and serve 2 year terms; Chair selected from the membership of the committee which served the previous year)

Z. Bayasi (CHAIR - CCEE)	(term ends 5/20)
— J. Katz (AE)	(term ends 5/19)
S. Sharma (ECE)	(term ends 5/20)
A. Beyene (ME)	(term ends 5/19)

• <u>SCHOLARSHIP AND AWARDS</u>: (members elected by respective Departments and serve 2 year terms; AE&ECE members elected in odd years, CCEE&ME elected in even years; Chair elected by the committee at the beginning of each year)

_	S. Seshagiri (CHAIR - ECE)	(term ends 5/19)
_	B. Narang (AE)	(term ends 5/19)
_	A. Kinoshita (CCEE)	(term ends 5/20)
_	F. Miller (ME)	(term ends 5/20)

COE COMMITTEES 2019 - 2020 (CONT...)



 <u>ACADEMIC POLICY AND PLANNING</u>: (members elected by respective Departments and serve 3-year terms; members are eligible for re-election; Chair elected by the committee at the beginning of each year)

S. Kumar (CHAIR - ECE)

— G. Jacobs (AE)

— R. Dowell (CCEE)

A. Beyene (ME)

(term ends 5/21)

(term ends 5/21)

(term ends 5/19)

(term ends 5/21)

E. Olevsky (Dean) – ex-officio

• <u>CURRICULUM</u>: (members elected by respective Departments and serve 2-year terms; Chair elected by the committee at the beginning of each year)

G. Youssef (CHAIR - ME)

— N. Mladenov (CCEE)

— L. Demasi (AE)

— E. Engin (ECE)

(term ends 5/19)

(term ends 5/20)

(term ends 5/19)

(term ends 5/20)

COE COMMITTEES 2019 - 2020 (CONT...)



• INTRAMURAL GRANTS COMMITTEE – (formerly RSCA): (members elected by respective Departments and serve 1-year term; Chair elected by the Committee; a graduate student member selected by Committee)

S. Venkataraman (CHAIR - AE)

— S. Ghanipoor-Machiani (CCEE)

— S. Sharma (ECE)

— S. Kassegne (ME)

(term ends 5/19)

(term ends 5/19)

(term ends 5/19)

(term ends 5/19)

COE – GRADUATE STUDIES & RESEARCH PROGRAMS COMMITTEE



 Members made up of Department Graduate Advisors, JDP Director, and Associate Dean (Chair) called by the Dean and Executive Committee to serve indefinitely as of 9/24/08 Executive Committee Meeting

- T. Garoma (Interim Assoc. Dean) Chair
- S. Venkataraman (AE)
- T. Alves (CCEE)
- M. Sarkar (ECE)
- F. Miller (ME)
- S. Kassegne (BioEng)

COE - COMPUTER INFRASTRUCTURE & SOFTWARE COMMITTEE



- Members made up of Department Chairs, IT Lead, and Associate Dean. This Committee was recomposed at the 9/24/08 Executive Committee Meeting
 - W. Nguyen (IT Lead) Chair
 - G. Jacobs & P. Lu (Chair, AE)
 - A. Jahangiri & J. Supernak (Interim Chair, CCEE)
 - Y. Ozturk & Chris Mi (Chair, ECE)
 - A. Bhalla (replacing Dr. Subrata Bhattacharjee for 2018-19) & J. Abraham (Chair, ME)
 - T. Garoma (Interim Assoc. Dean) ex-officio

COE - INTERNATIONAL PROGRAMS COMMITTEE



- Members made up of faculty with existing International Study-Abroad Programs, and the Assistant Dean of Engineering for Student Affairs
 - T. Garcia, Assistant Dean of Engineering for Student Affairs Chair
 - N. Nosseir (AE)
 - J. Supernak (CCEE)
 - C. Mi (ECE)
 - K. Moon (ME)

COE - STUDENT SUCCESS FEE COMMITTEE



- Chaired by the Assistant Dean for Student Affairs, (2) Faculty members, selected by the Department Chairs, will serve each year on a rotating basis. AE & ME members serve in odd years; CCEE & ECE members serve in even years)
 - T. Garcia (Assistant Dean of Student Affairs) Chair
 - X. Liu (AE)
 - A. Kinoshita (CCEE)
 - K. Huang (ECE)
 - K. Moon (ME)



INTERMISSION



PADMA NAGAPPAN

SCIENCE/RESEARCH WRITER

MELISSA PORTER

SOCIAL MEDIA STRATEGIST



SAN DIEGO STATE UNIVERSITY

Strategic Communications and Public Affairs

Padma Nagappan Science & Research Writer

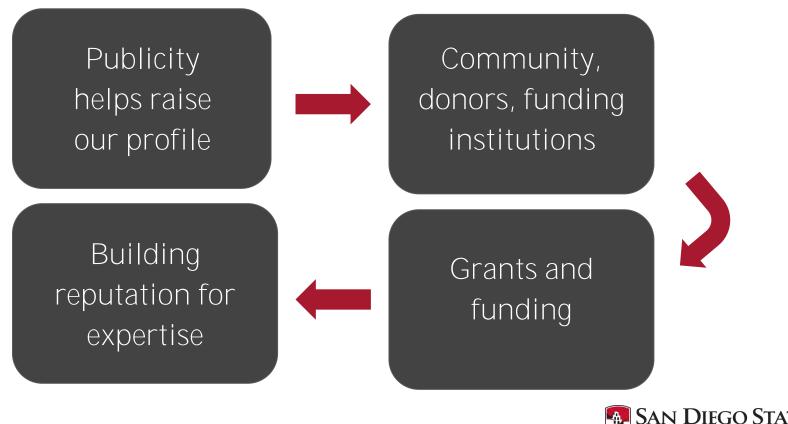
Melissa Porter Social Media Strategist

How StratComm can help

- NewsCenter Story
- Social Media posts on Twitter, Facebook
- Media promotion if it's a good fit
- Visuals photo/video to draw attention
- Media and messaging training
- Experts Directory
- Why make the effort?



Why is Publicity Important?





When to reach out to us

For study papers

- As soon as you get acceptance from a journal
- Why? We need time to evaluate the best approach NewsCenter story/social media/media promotion, a combination of all three, or only college website
- Lead time to publishing varies for journals from two days to many weeks
- Send a brief description in <u>lay</u> terms what are the key findings and what impact can/will it have; are you first/senior/co-author; is this new or continuing research; where will it be published; when will it be published.



Can you understand this?

Many bacteria interact with target organisms using syringe-like structures called Contractile Injection Systems (CIS). CIS structurally resemble headless bacteriophages and share evolutionarily related proteins such as the tail tube, sheath, and baseplate complex. In many cases, CIS mediate trans-kingdom interactions between bacteria and eukaryotes by delivering effectors to target cells. However, the specific effectors and their modes of action are often unknown. Here, we establish an ex vivo model to study an extracellular CIS (eCIS) called Metamorphosis Associated Contractile structures (MACs) that target eukaryotic cells. MACs kill two eukaryotic cell lines, Fall Armyworm Sf9 cells and J774A.1 murine macrophage cells, by translocating an effector termed Pne1. Before the identification of Pne1, no CIS effector exhibiting nuclease activity against eukaryotic cells had been described. Our results define a new mechanism of CIS-mediated bacteriaeukaryote interaction and are a step toward developing CIS as novel delivery systems for eukaryotic hosts.

SAN DIEGO STATE

Neither could we!

Here's the lay description of the same microbiology study:

It's about how bacteria interact with marine animals, specifically tubeworms and hydractinea. The study focused on this intriguing syringe like structure that bacteria produce, which is injected into animals. The structures actually promote growth in animals, so they're beneficial. This is the 2nd study on it, and they show how this bacteria can interact in-vitro with animals, and how these nano-scale injectors can be used for novel drug delivery by loading them with vaccines or targeted therapeutics.



Here's a recent robotics abstract

We formulate a predictor-based controller for a high-DOF manipulator to compensate a time-invariant input delay during a pick-and-place task. Robot manipulators are widely used in telemanipulation systems on the account of their reliable, fast, and precise motions while they are subject to large delays. Using common control algorithms on such delay systems can cause not only poor control performance, but also catastrophic instability in engineering applications. Therefore, delays need to be compensated in designing robust control laws. As a case study, we focus on a 7-DOF Baxter manipulator subject to three different input delays. First, delay-free dynamic equations of the Baxter manipulator are derived using the Lagrangian method. Then, we formulate a predictor-based controller, in the presence of input delay, in order to track desired trajectories. Finally, the effects of input delays in the absence of a robust predictor are investigated, and then the performance of the predictor-based controller is experimentally evaluated to reveal robustness of the algorithm formulated. Simulation and experimental results demonstrate that the predictor-based controller effectively compensates input delays and achieves closed-loop stability.



And here's a lay description for it:

Elderly people typically suffer from jerky motion in their hands due to brain malfunctions. A robot manipulator that has been trained and configured in a San Diego State University lab to mimic the human brain may eventually help avoid such mishaps by bringing stability and safety in motion.

The research team has spent four years working on algorithms that can successfully command the robot to mimic the human brain and the jerky actions of an elderly person. This has helped advance the understanding of why the miscommunication and subsequent time-delay happens between the brain and muscles.



Why that description worked

It immediately paints a vivid picture, and our team understood this was a very visual story

Media and the public can relate to it

Actual research was in

control systems - highly technical -

but we focused on the end result -

older people - easy to understand.





Other options for research

- Not all studies need to be stories some may be better suited to a news announcement on your department & college website & social media channels
 Why and When:
- If it's incremental findings from ongoing research
- If you're not the first or senior author
- It depends on the significance of your findings and the journal it's published in
- We can help evaluate and suggest alternatives



When else to reach out to StratComm

- Student news research, projects, innovations
 - (Shows the public the opportunities we offer for student research and innovation)
- Community connections do you work with local schools, youth groups, non-profits, industry, government agencies?
 - (Highlights the impact we have on the local community)
- There are many such stories we could highlight but we need <u>you</u> to tell us about it.



How visuals help

Fact: A picture is worth a 1,000 words!

- Visuals = Appeal
- Draws many more eyes to the story or social media post
- Quick way to tell our story slideshows and short videos 30 seconds to 2 minutes
- No good visuals = little interest
- Media wants it too



Why this story did well





Why you need to take pictures



Whether its research stories, or summer abroad, or student projects, or community engagement - take pictures along the way.



Why Use Social Media?

Social media is a powerful communication tool to share relevant and timely information. The benefits of using social media include:

- Increased visibility and awareness
- Promotion of initiatives and milestones
- Engagement with the online community
- Collaboration opportunities with other campus partners
- Increased website traffic

126.6K 99.3K 37.8K



Social Media Example: Video



Videos on social media do an excellent job at capturing the attention of the user. Social media videos are typically under 60 seconds and are created using still images, video clips and text.

Example: California Condor study:

- 1.1K media views
- 113 total engagements



Social Media Examples





Best Practices: Creating Social Media Posts

- Think Visuals: Identify any opportunities to use images or video clips to showcase the topic of the post.
- Identify Web Property to Link to: Determine any website related to the post that would be most appropriate to send traffic to. (i.e linking to an article about the research)
- Keep Language Concise: Avoid jargon and overly technical language. The social copy should be concise and easy to understand.
- Tag and Collaborate When Possible: Share any campus partners or other group/organization that are related to the post. Tagging other social profiles helps to encourage re-shares and increase impressions.



Questions?



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mporter2@sdsu.edu





DR. RADMILA PRISLIN

AVP FOR ACADEMIC AFFAIRS
RESOURCE MANAGEMENT

ACADEMIC AFFAIRS BUDGET PROCESS

Radmila Prislin, Associate Vice President
Academic Affairs – Resource Management

Presentation to CENG August 22, 2019



First – Get the Money

SDSU Operating Fund (UOF):

- State general fund (GF)
- Resident tuition net of SUG
- Non-resident tuition: 70% base, 30% 1-X
- SSF and other fees (e.g., course fees)
- Open University revenue (OU)
- Cost recovery (e.g., Reimbursement Release Time/RRT)

Lottery

Revenue from Auxiliaries (CERF, RSF)



Allocation of Revenue-Based Resources

SSF

- 90% Faculty salaries and benefits
- 10% SSF-ARP
- 1-X SSF "savings": extra sections, start-ups

OU, Cost-Recovery, CERF

 All revenue stays where it is generated: departments/colleges

RSF on full F&A

10%+ to Pls,15% to Deans, 1% to VPR



GF: From State to San Diego State

Budgeting Timeline:

- November CSU budget request to the State
- January CA State budget plan ("Governor's January" budget)
- March CSU budget letter to campuses based on State January budget plan
- May CA State May revise
- June CA adopts budget
- July CSU final budget letter to campuses based on State June final budget. For FY 2019-20:
 - SDSU new base allocation \$20M, of which
 - \$11.2M → compensation & minimum wage increases
 - \$3.0M → increase in benefits costs (health & retirement)
 - \$1.9M Graduation 2025 initiative
 - \$3.9M 2% enrollment growth



GF: From State to San Diego State

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Budgeting in Times of Uncertainty

- GF allocation not known until July
- Tuition revenue not determined until Spring census
- 3rd certain thing in life: "surprises" with budgetary implications
- Budget conservatively!



Allocation of the UOF resources at SDSU

Base ("permanent") \$ allocations: Incremental with new PBAC allocation added to prior years allocations

New base allocations are zero-based

One-time \$ allocations: zero-based

Allocations made through the PBAC process



PBAC Process

- Determine funds available (GF, Tuition) after addressing mandatory cost increases
- Each division determines its funding priorities



Increasing transparency of the budgeting process

- Increase transparency: town-hall meetings, ARP+PBAC joint discussions, VP BFA budget updates, PBAC website
- Division-specific processes
- AA: Discussions at ADC, CCD, AVPs AA → Provost
- Discussions at UGC, URC → VPR & GD
- Get involved!
 - Department, College, & University level discussions
 - Know your representatives at ADC, UGC, URC, ARP, PBAC



Prioritizing AA Requests for Base Funding

Must Fund:

- T/TT Faculty promotion-related salary increase (\$503K)
- 2019/20 T/TT positions (\$2.9M: \$1.9M salaries, \$1M benefits)
- Enrollment growth partial funding (\$1.5M)

Previous commitments:

- Library subscriptions (\$100K)
- SDSU-IV operations (\$20K)

Other priorities - examples:

- Staff positions (\$600K)
- Support for MS/MA students (\$250K)
- Bridge funding for faculty (\$50K)
- Tribal liaisons (\$150K)
- CIO positions (\$216K)



Prioritizing AA Requests for 1-X Funding

- Must-fund base →1-X
 - Enrollment growth funding (\$2.25M x2)
- Other priorities Examples:
 - Faculty start-up (\$1.5M)
 - FERP funding base → 1-X (\$1M)
 - Class-size reduction initiative (\$1M)
 - Deferred Maintenance (\$6M)
 - PSFA CSFM Corrections Construction (\$1.5M)
 - PSFA building environmental condition improvements (\$3M)
 - Traffic mitigation (\$2.6M)
 - Access control replacement/upgrade (\$1M)
 - Academic building capital fund (\$2M)
 - Campus to resume previous CES cost-shift (\$3M)
 - Matching funds for grants (\$400)
 - Partner hires (\$500)



Allocation of Resources to AA Units

Incremental budgeting: New allocations added to prior year base (historic) allocations in the following 3 segments of an integrated budget:

- Instructional
- Staff/management ("Non-faculty")
- Operational

Also, elements of

Activity-based budgeting (e.g., Summer enrollment incentive program)



Instructional Budget

Adjustments to base funds made to account for:

- New T/TT faculty salaries (+)
- Promotion funds (+)
- Unit 3 GSI when applicable (+)
- Market-based, equity-based salary adjustments as available/applicable (+)
- Enrollment growth (partial FTES-based funding in base \$)
 (+)
- Miscellaneous funds as available/applicable (e.g., EO 1110, ISA) (+)
- T/TT retirements and separations (-) → 80 : 20 model



Instructional Budget (cont.)

Temporary adjustments (1-X allocations)

- Enrollment growth (partial funding in 1-X allocations) (+)
- Support for new faculty reduced teaching load (+)
- Support for sabbatical leave replacement (+)
- UGP(+)
- Exceptional services AT (+)
- AUAT (+)
- Other instructionally-related support as available (e.g., summer incentive program)
- Reimbursed Release Time (+)



Staff-Management ("Non-faculty") Budget

Base adjustments

- GSIs for staff and management (+)
- New staff salaries (+)
- Retirement and separation "savings" remain within unit

Temporary adjustments

Project/Initiative-based funding for positions (e.g., advisors)



Operating Budget

Base adjustment to historic allocations:

 Rare, strategic/corrective (e.g., UGF allocation → GRA → Colleges; Library subscription allocation)

Potential 1-X adjustments to historic allocations:

Equipment

Potential zero-based new 1-X allocations:

- TT search support
- Sabbatical support for colleges



Stated Differently

Looking at an integrated budget:

- Permanent (base) adjustments related to:
 - Strategic hiring initiatives (e.g., ~ 350 new T/TT faculty)
 - Contractually-obligated and negotiated salary increases
 - Enrollment growth (partially)
 - Separations and retirements
- 1-X (temporary) adjustments applied to:
 - Everything else: strategic initiatives, critical needs





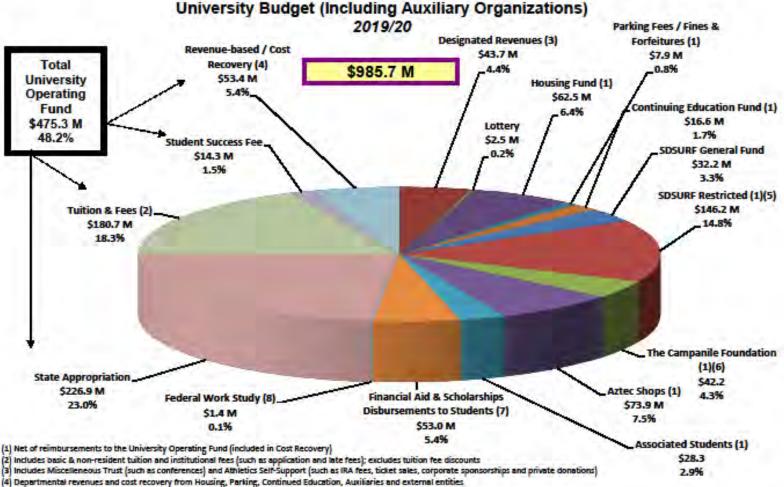
ACADEMIC AFFAIRS BUDGET PROCESS SUPPLEMENTAL SLIDES

Radmila Prislin, Associate Vice President
Academic Affairs – Resource Management

Presentation to CENG August 22, 2019



SAN DIEGO STATE UNIVERSITY



[5] Includes KPBS self-generated sources (such as grants, membership fees and private donations)

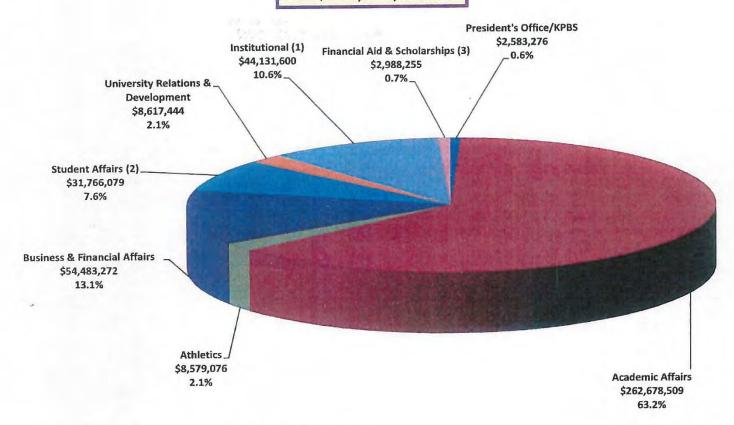
(6) Excludes Athletics Grant-in-Aid (included in Athletics Self-Support) 7) Excludes loans

(8) Excludes campus match

SAN DIEGO STATE UNIVERSITY

University Operating Fund Budget Expenditures by Division 2017/18

\$415,827,511



⁽¹⁾ Institutional utilities, insurance premiums, and unallocated compensation

⁽²⁾ Includes Student Health Services revenues of \$10,936,000

⁽³⁾ Includes Educational Opportunity Program Grant, Graduate Equity Grant, Education Doctoral Grant, Doctoral of Physical Therapy Grant, Graduate Business Professional Grant; excludes State University Grant (tuition fee discounting) and Athletics Grant-in-Aid



KARA PETERSON

DESIGN ADMINISTRATOR
PROJECT MANAGEMENT

FALL 2019 ENGINEERING BUILDING CONSTRUCTION PROJECTS

WHAT ARE WE BUILDING?
WHERE WILL PROJECTS TAKE PLACE?
WHERE WILL SWING SPACE (TEMPORARY
SPACE DURING CONSTRUCTION) BE
LOCATED?

ENGINEERING NEW RESEARCH LABS/OFFICES

SCOPE:

NEW RESEARCH LABS AND FACULTY OFFICES THROUGHOUT ALL LEVELS OF ENGINEERING BUILDING.

LOGISTICS:

2 CONTRACTORS (SWINERTON, AND KITCHELL) WILL BE WORKING IN THE BUILDING AT THE SAME TIME.

SCHEDULE:

E120: SEPTEMBER 9 – END OF DECEMBER MAIN BUILDING: NOVEMBER – JANUARY

ENGINEERING BUILDING AREAS UNDER CONSTRUCTION FALL 2019



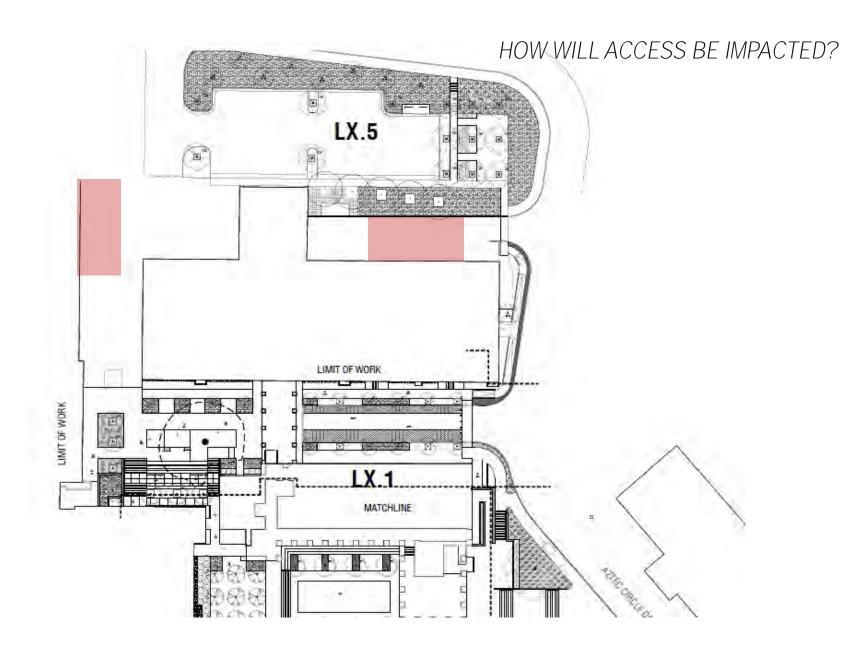




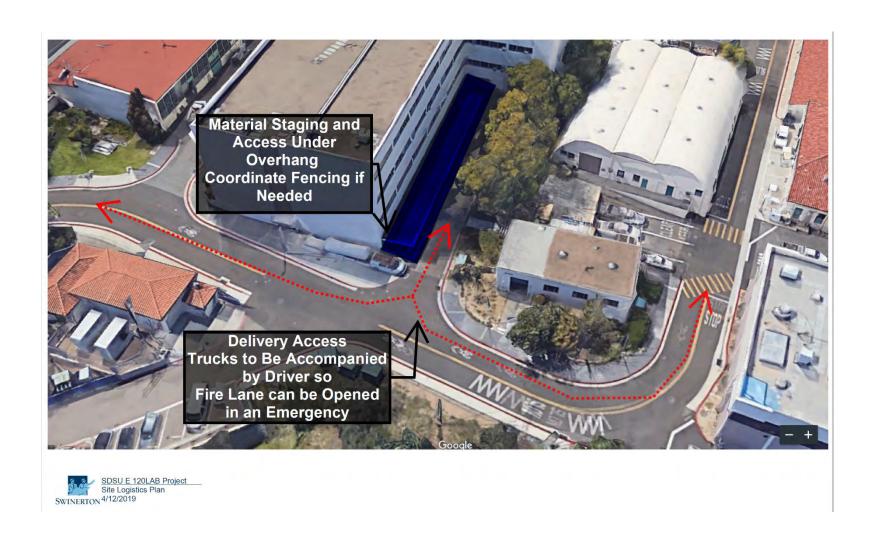


WHEN WILL WE HEAR NOISE? WHEN WILL BUILDING SYSTEMS BE AFFECTED?

ACTIVITY	ANTICIPATED DATES
DEMO	SEPTEMBER 9 – SEPTEMBER 20, 2019
WALL FRAMING; MECHANICAL/ELECTRICAL/PLUMBING/ROUGH IN	MID OCTOBER
DRYWALL	LATE OCTOBER
PERIODIC SHUTDOWNS TO TIE IN TO BUILDING SYSTEMS	MID NOVEMBER
TEST/BALANCE NEW MECHANICAL SYSTEMS (A FEW HOURS OF HIGHER AIRFLOW)	EARLY DECEMBER
FIRE ALARM TESTING	AFTER CLASSES END



HOW WILL ACCESS BE IMPACTED?



HOW WILL ACCESS BE IMPACTED?



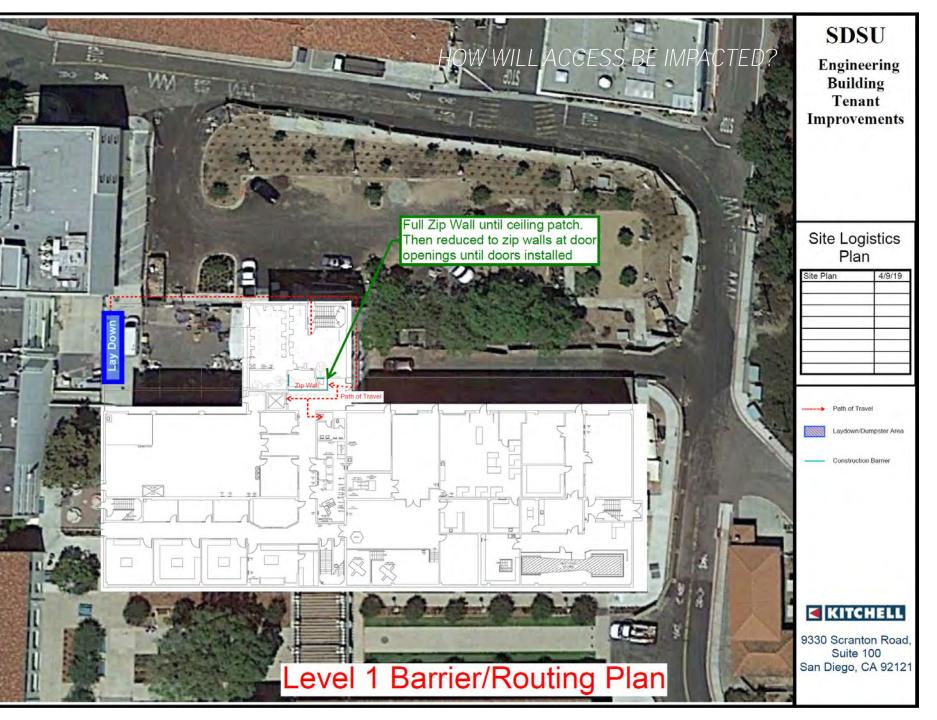


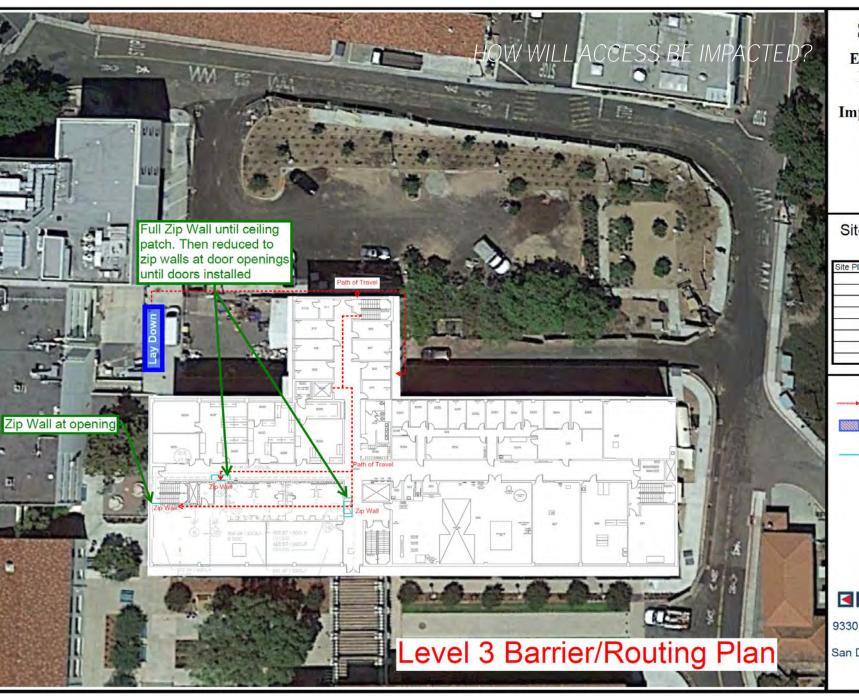
HOW WILL ACCESS BE IMPACTED?











SDSU

Engineering Building Tenant Improvements

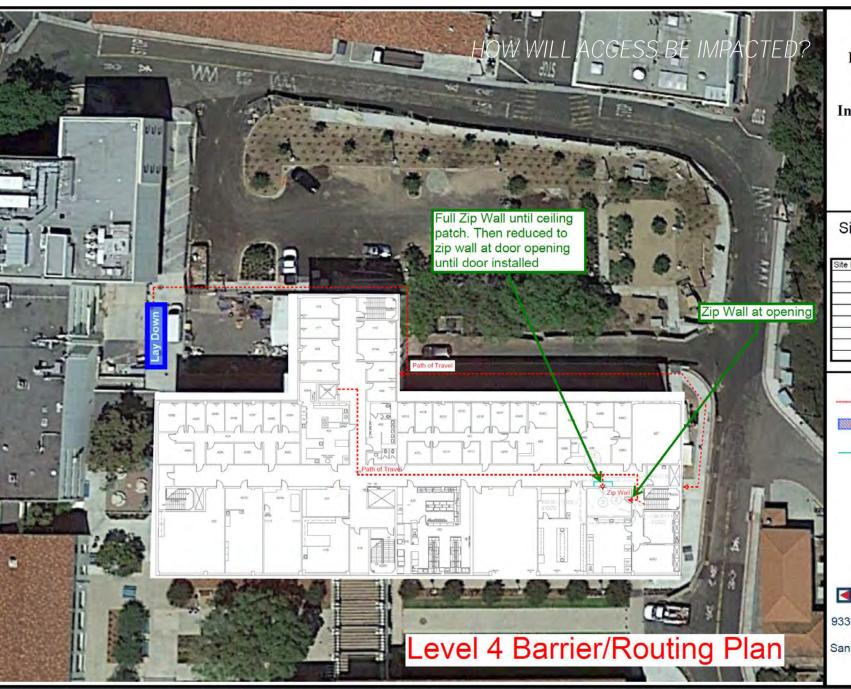
Site Logistics Plan

ite Plan	4/9/19



■ KITCHELL

9330 Scranton Road, Suite 100 San Diego, CA 92121



SDSU

Engineering Building Tenant Improvements

Site Logistics Plan

Site Plan	4/9/19		
	_		
	_		
	_		

Path of Travel

Laydown/Dumpster Area

Construction Barrier

■ KITCHELL

9330 Scranton Road, Suite 100 San Diego, CA 92121

WHO WILL BE RESPONSIBLE DURING THE PROJECTS? HOW WILL WE COMMUNICATE PROJECT INFORMATION?

			0.00		agemen				
	PROJECT	DESCR	PTION &	EMERGE	NCY CONTAC	TS			
Project Name	Engineer	ing 120 Lab	s Project						
Project Start / End Dates	Start: Se	otember 9. 3	2019		Complete: December 2019				
Project Location	Engineer	Engineering 120				3			
Scope of Work		Renovation to three lab spaces. Includes demoition: framing, mechanical, electrical, plumbing, ceilings, lighting, cabinetry, flooring, and paint.							
	FOR AL	LEM	ERGE	NCIES	CALL:	911			
For all incidents, injur personnal M	es, property dam UST be immedial								
Project Personnel		Name		Phone Number(s)		Email			
SDSU Project Manager	BRIAN SMITH	BRIAN SMITH		1		1			
On Site Contractor Contact	Enter the name of Contact	Enter the name of Contractor Point.			Enter rumper: xxx-xxx-		Enler user@dumem		
	C	THER C	ONTACT	INFOR	MATION				
Subcontractor Site Enter the summer of subcontractor Site Superintendent Superintendent			boontractors	Site Enter number 200-900-0000			Enter user@intote		
Subcontractor Health & Saf Representative		Enter the name of subcontractor to safety representative			Enter number: kox-xxx-xxxx		Enter Leaf@porra		
Subcontractors - Compar	y Name	arne Name of Designa			Representative	ul. T	Phone Number		
Enter Subcontractor company name		Enter	Enter raime of individual			Enter number: xxx-xxx-xxxx			
Enter Subbler company namé Enter na		name of ind	of individual Er			nter number: xxx-xxx-xxxx			
		Em		A trace Mari					
T	Stratent Die-	Emergency / After Student Disability			-	DSI Work Co	introl Center		
SDSU Public Safety	Services Univer Coordinator Adm		Environmental Ith and Safety		SDSU Work Control Center (Facility Services)				
SDSU Police Non- Emergency Line 519-594-1991	Phone: (619) 59	Phone: (619) 594-6423 Pt					one: 619-594-4754		

QUESTIONS

CRITICAL INSTRUCTION/RESEARCH/EQUIPMENT DATES

COORDINATE ACCESS WITH ADJACENT SPACES

QUESTIONS FROM GROUP



College of Engineering

CLOSING REMARKS



College of Engineering

THANK YOU!