Awards Received July 1, 2020 - June 30, 2021

COLLEGE OF ENGINEERING
Dr. Eugene Olevsky, Dean

Office of the Dean

Dr. Eugene Olevsky
University of California Office of the President: “2020-2021 MESA Engineering Program (MEP) $10,000
2021-2022 MESA Engineering Program (MEP),” $10,000; “Math, Engineering, Science Achievement (MESA)
MESA Schools Program (MSP) - Jeanette Ramos,” $360,000; “Math, Engineering, Science Achievement (MESA)
MESA Schools Program (MSP) - Luis Topete,” $180,000

Total: $560,000

Aerospace Engineering

Dr. Ahmad Bani Younes
Space Micro Inc: “Modeling of Pointing, Acquisition and Tracking (PAT) System for Laser Communication
Terminal,” $50,000

Total: $50,000

Dr. Gustaaf Jacobs
Stochastic Source Coupling,” $103,827

Total: $103,827

Dr. Xiaofeng Liu
with Inner Void Areas of Arbitrary Boundary Shapes,” $25,460

U.S. Department of Defense U.S. Army: “Equip and Establish the Laboratory of Experimental Fluid Dynamics at
SDSU with Full Range Measurement and Analysis Capabilities in Particle Image Velocimetry,” $599,702

National Aeronautics and Space Administration: “Prandtl-D Aerodynamic Load and Induced Thrust Validation
Using Time-Resolved Stereoscopic Particle Image Velocimetry (PIV) Wind Tunnel Measurements (Fellow - Brad
Zalenko),” $42,000

Total: $667,162

Dr. Ping Lu
National Aeronautics and Space Administration: “Advanced Aeroassist and Powered Guidance Technology for
Human Planetary Missions,” $50,000

Total: $50,000

Dr. Pavel Popov
American Chemical Society: “A New Class of Probability Density Functions for Turbulent Combustion Modeling,”
$110,000

Total: $110,000

Dr. Satchi Venkataraman

Total: $15,897

Civil & Environmental Engineering

Dr. Reza Akhavian
National Science Foundation: “CAREER: Co-Adaptation and Trust in Worker-Robot Interaction Toward Scalable
Adoption of Collaborative Robots in Construction,” $691,328

University of California Merced: “Caltrans Unmanned Aircraft System (UAS) Safety Management System (USMS),”
$47,175

Total: $738,503
Dr. Robert Dowell and Dr. Julio Valdes  
**Total: $256,052**  

Dr. Alicia Kinoshita  
**Total: $192,252**  
Colorado School of Mines: “Fuel Treatments and Hydrologic Implications in the Sierra Nevada,” $74,788

Alicia Kinoshita measures streamflow in the Sierra Nevada.  
PI: Alicia Kinoshita  
Photo courtesy of Jonathan Smith

National Science Foundation: “Coupling Post-fire Vegetation and Volumetric Sediment Regimes in Urban Mediterranean Systems,” $113,124


Dr. Marta Miletic  
**Total: $136,319**  

Dr. Victor Ponce and Dr. Matthew Verbyla  
**Total: $140,473**  
Michigan State University: “Knowledge-to-Practice – K2P: Mapping and Implementing Knowledge to Practice Utilizing the Global Water Pathogen Project (GWPP),” $140,473

Dr. Hassan Tavakol-Davani  
**Total: $349,999**  
National Science Foundation: “Sustainable Water Infrastructure for Adapting to Coastal Climate Change,” $349,999

Dr. Julio Valdes  
**Total: $5,882**  
New Mexico State University: “Minority University Research and Education Project (MUREP) Advancing Regolith-Related Technologies and Education (MARRTE),” $5,882
Dr. Matthew Verbyla  
Water Research Foundation: “Demonstration of Pathogen Removal Credits for Wastewater Treatment,” $99,653

Mr. Thomas Zink  
U.S. Department of Defense Army Corps of Engineers: “San Clemente Island Botany Program Implementation,” $544,630

Electrical & Computer Engineering

Dr. Baris Aksanli and Dr. Huu Nguyen  
U.S. Department of Defense Office of Naval Research: “Training Reserve Officer Training Corps (ROTC) in Cybersecurity, Sensor Processing, Communication Technology, and Artificial Intelligence at San Diego State University,” $248,779

Dr. Sunil Kumar  


Dr. Chunting Mi and Dr. Kevin Wood  

Dr. Christopher Paolini  

Dr. Satish Sharma  
U.S. Department of Defense Office of Naval Research: “Agile Antenna for Troposcatter Communications,” $150,000

Fuse Integration: “Resilient Directional Mesh Enhanced Tactical Airborne Networks,” $80,000

National Aeronautics and Space Administration: “Applicability of Hybrid-Beamforming Based Massive MIMO Antenna Arrays Concepts for 5G Millimeter Wave Applications to SmallSats Platforms,” $50,000

Dr. Lal Tummala  
2020-2021 SDSU Awards Listing

Dr. Junfei Xie  

Dr. John Abraham  
National Institute of Aerospace: “2021 NASA RASC-AL Moon to Mars Ice Prospecting - Materials Stipend,” Total: $10,000

Dr. Asfaw Beyene  
U.S. Department of Energy: “Industrial Assessment Centers, SDSU,” Total: $25,000

Dr. Subrata Bhattacharjee  
National Aeronautics and Space Administration: “Residence Time Driven Flame Spread Over Solid Fuels,” Total: $85,000

Dr. Joaquin Camacho  

PhD student Shruthi Dasappa and Dr. Joaquin Camacho in front of a high-temperature carbon synthesis setup where extra hot flames are used to produce nano-crystalline carbon nanoparticles.  
PI: Joaquin Camacho  
Photo courtesy of Camacho Lab

Dr. Randall German and Dr. Eugene Olevsky  
National Aeronautics and Space Administration: “Multi-Scale Modeling and Experimentation on Liquid Phase Sintering in Gravity and Microgravity Environments,” Total: $60,000

Dr. Samuel Kassegne  
University of Washington: “National Science Foundation Engineering Research Center for Neurotechnology (CNT),” Total: $26,595

Dr. Karen May-Newman  
The San Diego Foundation: “BELIEVE: Black Empowered Learners in Innovative Engineering Environments,” Total: $75,000

Dr. Fletcher Miller  
National Aeronautics and Space Administration: “Developing the Narrow Channel Apparatus as a NASA Standard Material Flammability Test – Flight Experiment,” Total: $110,000

COVID-19 award
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**Dr. Zahra Nili Ahmadabadi**  
**Total: $25,000**  
StarNav LLC: “Swarm of Intelligent Agents for Unpredictable, Scalable, and Adaptable Search of Uncertain GPS-Denied Environments,” $25,000

**Dr. Eugene Olevsky**  
**Total: $200,000**  
National Science Foundation: “I-Corps: Load Bearing Ceramic Bone Scaffolds Produced via 3D Printing,” $50,000

Dr. Olevsky with PhD students Maricruz Carrillo and Donovan Olumor discussing an innovative design of a 3D-printer in the SDSU Powder Technology Laboratory.  
PI: Eugene Olevsky  
Photo courtesy of Padma Nagappan

**Dr. Eugene Olevsky and Dr. Wenwu Xu**  
**Total: $110,017**  
National Science Foundation: “ECCENTRIC: A Mechanism of Flash Sintering of Ionic Ceramics,” $110,017

**Dr. Sung-Yong Park**  
**Total: $407,786**  
National Science Foundation: “Optofluidic Solar Indoor Lightning Towards Sustainable Buildings,” $407,786

Electrowetting-driven solar indoor lighting (e-SIL): an optofluidic approach towards sustainable buildings.  
PI and photo: Sung-Yong (Sean) Park
Dr. George Youssef
PPG Industries: “Fundamental Insights into Individual and Composite Coatings,” $35,000

Ph.D. candidate Nha Uyen Huynh (right) and postdoctoral fellow Dr. Carlos Gamez discussing loading and characterization protocol to investigate the mechanical response of various films provided by PPG Industries Inc.
PI: George Youssef
Photo courtesy of Crystal Reina

Dr. Kevin Wood
Hell's Kitchen Geothermal, LLC: “Improved Silica Removal for Enhanced Geothermal Plant Performance,” $177,000

National Science Foundation: “Improved Access to Respiratory Care Around the World Through Ultra-Low Cost Mechanical Ventilation,” $50,000