

AWARD TOTAL: \$13,158,303



Dr. Eugene Olevsky, Dean

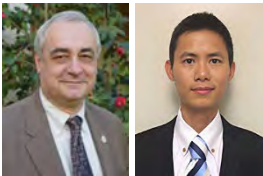
Office of the Dean

Aerospace Engineering



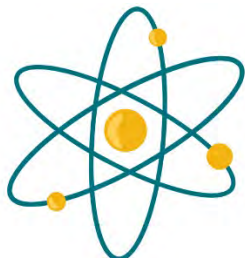
Dr. Eugene Olevsky
Total: \$740,000

University of California Office of the President: "2021-2022 Math, Engineering, Science Achievement (MESA) Engineering Program (MEP) - Natasha Celise," **\$80,000**; "Math, Engineering, Science Achievement (MESA) MESA Schools Program (MSP) - Jeanette Espino," **\$310,000**; "Math, Engineering, Science Achievement (MESA) MESA Schools Program (MSP) - Luis Topete," **\$350,000**



Dr. Eugene Olevsky and Dr. Wenwu Xu
Total: \$140,197

U.S. Department of Energy Office of Science: "Supplement Extension: Multi-Scale Modeling of Electro-Nano-Pulse Processing," **\$140,197**



Dr. Ahmad Bani Younes
Total: \$2,500

U.S. Department of Energy Idaho National Laboratory: "Route Operable Unmanned Navigation of Drones," **\$2,500**



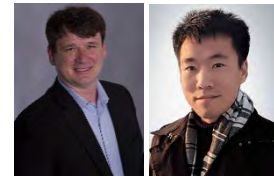
Dr. Jun Chen
Total: \$50,000

NASA Office of Stem Engagement: "Safety Verification with Data-driven Uncertainty," **\$50,000**



Dr. Gustaaf Jacobs
Total: \$374,439

U.S. Department of Defense Air Force Office of Scientific Research: "Birth and Control of Three-dimensional Lagrangian Separation: Optimal Control," **\$374,439**



Dr. Gustaaf Jacobs and Dr. Qi Wang
Total: \$168,728

U.S. Department of Defense Air Force Office of Scientific Research: "Inference of Forcing Kernels in Generalized, Multi-Physics, Dynamic Systems," **\$168,728**



Dr. Ping Lu
Total: \$128,814

National Aeronautics and Space Administration: "Autonomous End-to-End Trajectory Planning and Guidance for Constrained Entry and Precision Powered Descent by Unified Optimization Theory," **\$84,000**; and "Flight Testing of Advanced Powered Descent Guidance Algorithms," **\$44,814**



Dr. Ping Lu cont.



Dr. Satchi Venkataraman
Total: \$20,000

American Society for Engineering Education: "Archival Publication of Research on Design and Implementation of Professional Development Course Tailored for Interdisciplinary Computational Science Graduate Students," **\$5,000**

California Space Grant Foundation: "Ant Nest Inspired Biomimetic Functionally Graded Metamaterials and Subterranean Lunar Habitats for the Artemis Mission," **\$15,000**



Dr. Satchi Venkataraman and Dr. Margherita Capriotti
Total: \$38,500

M4 Engineering: "Friction Drilling Fasteners for Composite Structures," **\$38,500**



Dr. Qi Wang
Total: \$459,701

National Science Foundation: "ERI: Efficient Identification of Passive Scalar Source in Turbulence Using the Probabilistic Domain of Dependence (P-DoD)," **\$200,000**; and "Towards Efficient State Estimation in Wall-bounded Flows: Hierarchical Adjoint Data Assimilation," **\$259,701**

Civil, Construction, and Environmental Engineering



Dr. Thais Alves
Total: \$66,220

Lean Construction Institute: "Addressing Construction Worker Mental Health Using Lean Approaches," **\$66,220**



Dr. Robert Dowell
Total: \$10,908

Grid Catalyst: "Grid Wrap," **\$2,500**; "Structural Testing of 20 Smaller Diameter Wood Telephone/Utility Poles Wrapped with Carbon Fiber Sheets," **\$7,415**; "Structural Testing of Larger-Diameter Wood Telephone/Utility Poles Wrapped with Carbon Fiber Sheets," **\$993**



Dr. Christy Dykstra
Total: \$136,367

National Science Foundation: "CAREER: Elucidating the Interaction(s) Between Bacteria and Archaea in a Biocathode," **\$136,367**



Dr. Gloria Faraone
Total: \$199,638

National Science Foundation: "ERI: Developing Ductility through Replaceable Concrete Anchorage Connections for Improved Seismic Performance of Mass Timber Structures," **\$199,638**



Dr. Sahar Ghanipoor-Machiani and Dr. Arash Jahangiri
Total: \$75,000

San Jose State University Foundation: "Adoption of Intelligent Speed-Assist Technology," **\$75,000**



Dr. Alicia Kinoshita
Total: \$327,752

National Aeronautics and Space Administration: "Impacts of Changing Wildfire Regimes on Human Communities and Water Security," **\$327,752**



Dr. Hanyang Li
Total: \$173,583

California Air Resources Board: "TARTA Improvements for Communities," **\$49,999**

Comite Civico Del Valle Inc.: "Toxic Metals Monitoring Regional Network (ToMMoRW): High Time Resolution community-based Monitoring in California's Imperial Valley," **\$117,595**

University of California at Davis: "TARTA-XACT Comparison," **\$5,989**



Dr. Marta Miletic
Total: \$198,798

National Science Foundation:
"Collaborative Research: CLIMA:
Enhancing Soil-based Infrastructure
Resilience to Climate Change: Harnessing
the Potential of Fractured Soil by Adding
Biopolymers," **\$198,798**



Dr. Natalie Mladenov
Total: \$53,300

National Science Foundation:
"Graduate Research Fellowship Program
(GRFP) Facilitation Award for Scientists
and Engineers with Disabilities (FASSED)
Supplement - Fellow: L Astete-Vasquez,"
\$4,300; and "Investigating Antibiotics
Removal from Wet Onsite Sanitation
Systems Using Bench-scale Anaerobic
Digesters (Fellowship - Astete-Vasquez),"
\$49,000



Grad student Lilith Astete-Vasquez investigates
antibiotics removal from wet onsite sanitation
systems using bench-scale anaerobic digesters.
Photo credit: Rachel Crawford.



Dr. Dongye Zhao
Total: \$225,169

Auburn University: "A 'Trap-and-zap'
Technology for Cost-effective Removal
and Destruction of Aqueous-phase Per-
and Polyfluoroalkyl Substances at
Department of Defense (DoD) Sites,"
\$96,197

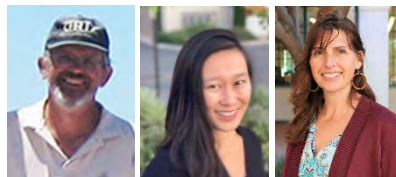
Geosyntec Consultants:
"National Science Foundation
Convergence Accelerator Track M:
Bioinspired and Biocatalytic Degradation
of the "Forever Chemicals," **\$114,472**; and
"Preliminary Study of Light-Independent
Activation of Excess Electrons Stored in
Chemically Reduced Transition Metal
Oxides (TMOs) or Derivatives for In-situ
Per-and Polyfluoroalkyl Substances
(PFAS) Degradation," **\$14,500**



Mr. Thomas Zink
Total: \$648,417

U.S. Department of Defense Army Corps
of Engineers: "San Clemente Island
Botany Program Implementation,"
\$606,363

U.S. Department of Defense U.S. Navy:
"Botany Management Program at Naval
Auxiliary Landing Field San Clemente
Island, California - MOD PO0005,"
\$42,054



**Mr. Thomas Zink, Dr. Alicia Kinoshita,
and Dr. Natalie Mladenov**
Total: \$1,978,182

San Diego River Conservancy:
"Restoration of Alvarado Creek -
City of San Diego Phase," **\$1,978,182**

Electrical and Computer Engineering



Dr. Baris Aksanli
Total: \$19,699

Arizona State University:
"SDSU Participation in the Student Design
Challenge Event - DASSH (Designing
Actionable Solutions for a Secure
Homeland) 2024," **\$19,699**



Team AzTechs works on their safe evacuation
system submission.
Photo courtesy of Team AzTechs.



Dr. Tong Huang and Dr. Chunting Mi
Total: \$1,500,000

National Science Foundation:
"Boosting Cyber and Physical Resilience
of Power Electronics-dominated
Distribution Grids in Energy Space,"
\$1,500,000



Dr. Sunil Kumar
Total: \$254,998

U.S. Department of Defense Air Force
Research Laboratory: "Deep Transfer
Learning based Cognition Engine for
Network-Adaptive Waveform Design,"
\$137,500; and "Mobility-Adaptive Cross-
Layer Protocols for Airborne Networks
with Single-/Multi-Beam Directional
Antennas," **\$37,500**

Dr. Sunil Kumar cont.
 PAR Government Systems Corporation:
 "Network-Adaptive Waveform Design,"
\$79,998



Dr. Chunting Mi
Total: \$139,651

University of California at San Diego:
 "Rapid Development of Urban Air Mobility
 Vehicle Concepts through Full-
 configuration Multidisciplinary Design,
 Analysis, and Optimization," **\$139,651**



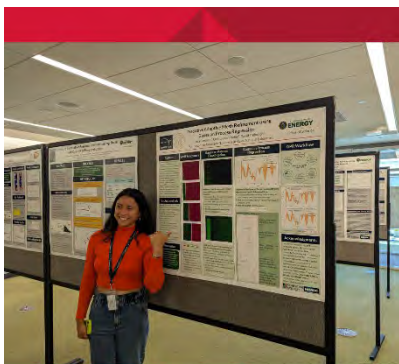
Dr. Huu Nguyen
Total: \$262,967

National Science Foundation:
 "Enabling Beyond-5G Wireless Access
 Networks with Robust and Scalable Cell-
 Free Massive Multiple Input Multiple
 Output (MIMO)," **\$262,967**



Dr. Christopher Paolini
Total: \$499,998

Department of California Highway Patrol:
 "Testing Services for Police Traffic Radar
 and Laser Speed Measuring Devices,"
\$499,998



SDSU undergraduate student Jana Gonzalez poses with her poster a 10-week funded summer research fellowship at Lawrence Berkeley National Laboratory. Photo credit: Lawrence Berkeley National Laboratory.



Dr. Mahasweta Sarkar
Total: \$147,167

Auburn University: "The Alliance of
 Persons with Disabilities and
 Intersectionality for Inclusion,
 Networking, and Transition Opportunities
 in Science, Technology, Engineering and
 Mathematics (STEM) (TAPDINTO-STEM),"
\$147,167



Dr. Satish Sharma
Total: \$176,962

U.S. Department of Defense Naval
 Information Warfare Center (NIWC):
 "Design and Test Support for Microwave
 Transmit and Receive SATCOM Wide
 Circular Polarized Phased Array," **\$79,962**

National Aeronautics and Space
 Administration: "5G Array for Lunar Relay
 Operations - Flight Test (FIGARO-FT),"
\$97,000



Dr. Hakan Töreyn
Total: \$37,625

Shirley Ryan AbilityLab:
 "Wearable Diaphragmatic Efficiency
 Monitoring Technologies Towards In-
 home Respiratory Monitoring of People
 with Cervical Spinal Cord Injury," **\$37,625**



Dr. Junfei Xie
Total: \$221,043

National Science Foundation:
 "CAREER: Towards Networked Airborne
 Computing in Uncertain Airspace: A
 Control and Networking Facilitated
 Distributed Computing Framework,"
\$221,043

Mechanical Engineering



Dr. John Abraham
Total: \$35,000

National Aeronautics and Space
 Administration: "NASA Lunabotics
 Competition Award," **\$5,000**

Stevens Institute of Technology:
 "2023 SOFSA 09 Advanced Vehicle
 Suspension: Multi-Domain Small Vehicle
 Propulsion System," **\$10,000**; "2023
 USAOC 05 Body Mounted Sensors:
 Physical Distress Monitor," **\$10,000**; "2023
 USASOC 11 Quiet Drone: Quiet
 Unmanned Aerial Vehicle (UAV)," **\$10,000**



Dr. Asfaw Beyene
Total: \$754,808

California State University San Francisco:
 "Industrial Assessment Centers - Regional
 Centers of Excellence," **\$754,808**



**Dr. Asfaw Beyene
 and Dr. Joaquin Camacho**
Total: \$343,737

U.S. Department of Energy Office of
 Energy Efficiency and Renewable Energy:
 "Industrial Assessment Centers, SDSU,"
\$343,737



Dr. Amneet Pal Bhalla
Total: \$266,856

National Science Foundation:
 "Collaborative Research: Ultrasound
 Driven Microbubble Clusters for
 Biomedical Applications," **\$266,856**



Dr. Subrata Bhattacharjee and Dr. Fletcher Miller

Total: \$204,522

National Aeronautics and Space Administration: "Residence Time Driven Flame Spread: The Final Phase," **\$204,522**



Dr. Sungbum Kang

Total: \$233,400

Chosun University: "Development of Damage Evaluation Model for Pipe-rack Structure using Big Data-based Machine Learning," **\$15,000**

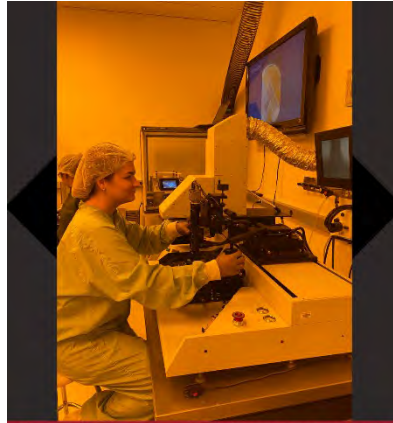
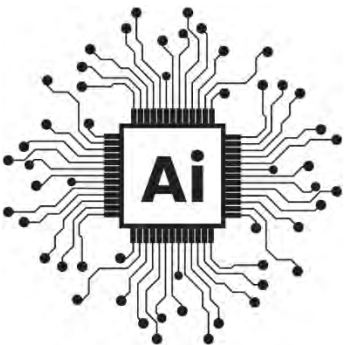
Kyungpook National University: "Using Physics-Informed Artificial Intelligence and Multi-Sensors for Real-Time Remote Monitoring and Prediction of the Defects and Water Leakage of Water Pipes," **\$218,400**



Dr. Samuel Kassegne

Total: \$84,555

University of Miami: "AccelNet-Implementation: Broadening Carbon Ring (A Holistic Approach to the Next Generation Carbons)," **\$84,555**



Sara Herrera, a master's student in bioengineering, prepares a sample for thermal treatment during nanofabrication at the NanoFAB.SDSU Core Facilities. Photo credit: Samantha Omer.



Dr. Parag Katira

Total: \$15,000

Columbia University: "Identifying the Origin of the Universal Performance Characteristics of Motors," **\$15,000**



Dr. Parag Katira and Dr. George Youssef

Total: \$350,000

U.S. Department of Defense U.S. Army: "b.iii.1. Materials Design: Long-range Interactions in Non-equilibrium Self-assembly," **\$350,000**



Dr. Zahra Nili Ahmadabadi

Total: \$155,809

U.S. Department of Defense Office of Naval Research: "Model-free Source Seeking Control for Cluttered GPS-denied Environments with Nonconvex Signal Fields," **\$155,809**



Dr. George Youssef

Total: \$254,795

U.S. Department of Defense Office of Naval Research: "Agile In-operando Nondestructive Evaluation During Additive Manufacturing of Naval Composite Materials," **\$150,000**

U.S. Department of Defense U.S. Navy: "Nondestructive Evaluation of Additively Manufactured Polymers and Composites," **\$81,665**

Hanyoung Nux Co., Ltd.: "The Development of Customized Sensor Technology for Installation of Safety Diagnostic Equipment for Facilities/Food," **\$23,130**



Dr. George Youssef and Dr. Sung-Yong Park

Total: \$77,986

Hanyoung Nux Co., Ltd.: "The Development of Customized Sensor Technology for Installation of Safety Diagnostic Equipment for Facilities/Food," **\$77,986**