

COLLEGE OF ENGINEERING

Office of the Dean

Dr. fredric j. harris **Total: \$14,062**

Astrapi Corporation: "*SBIR Phase II: Spiral Polynomial Division Multiplexing (SPDM)*," \$14,062

Dr. Morteza M. Mehrabadi **Total: \$422,798**

San Diego Unified School District: "*MESA Summer Camp 2017*," \$18,860

University of California Office of the President: "*2017-2018 MESA Engineering Program (MEP)*," \$10,000; "*Math, Engineering, Science Achievement (MESA) MESA Schools Program (MSP)*," \$375,000; "*MESA Oracle Summer Program*," \$9,469; "*MSP Oracle Summer Program - J. Espino*," \$9,469

Dr. Eugene Olevsky **Total: \$8,688**

University of California Office of the President: "*MSP/Oracle Summer Java Program*," \$8,688

Aerospace

Dr. Gustaaf Jacobs **Total: \$419,156**

U.S. Air Force Office of Scientific Research: "*Simulation of Particle-Laden Blast Waves with Inter-Scale Coupling and Uncertainty Quantification*," \$318,231

University of Southern California: "*Control of Lagrangian Coherent Structures at Stagnation and Separation Location on Airfoils*," \$100,925

Dr. Ping Lu **Total: \$52,588**

National Aeronautics and Space Administration: "*Integrated Entry and Powered Descent Guidance for a Human Mars Mission*," \$52,588

Civil & Environmental Engineering

Dr. Sahar Ghanipoor-Machiani **Total: \$236,203**

Virginia Polytechnic Institute and State University: "*Safe-D University Transportation Center*," \$236,203



Driving Simulator at Smart Transportation Analytics Research (STAR) Lab
PI: Dr. Sahar Ghanipoor-Machiani
Photo: Debbie Brighton

Dr. Natalie Mladenov **Total: \$70,000**

San Diego River Conservancy: "*Increasing Preparedness in the San Diego River Watershed for Potential Contamination Events*," \$70,000

Dr. Natalie Mladenov and Dr. Matthew L. Verbyla **Total: \$20,000**
City of San Diego: *"Increasing Preparedness in the San Diego River Watershed for Potential Contamination Events,"* \$20,000

Dr. Matthew L. Verbyla and Dr. Victor Ponce **Total: \$100,536**
Michigan State University: *"Knowledge-to-Practice – K2P: Mapping and Implementing Knowledge to Practice Utilizing the Global Water Pathogen Project (GWPP),"* \$100,536

Dr. Thomas A. Zink **Total: \$816,362**
U.S. Army Corps of Engineers: *"Dune Enhancement to Support the California Least Tern and Western Snowy Plover at the Silver Strand Training Complex, Naval Base Coronado, California,"* \$60,000;
"Proposed Research for Natural Resources Monitoring Navy Region Southwest," \$67,783; *"San Clemente Island Botanical Program Implementation, NALF San Clemente Island, Naval Base Coronado, California,"* \$544,325

U.S. Naval Facilities Engineering Command: *"Dune Restoration at Naval Base Coronado,"* \$19,906

U.S. Navy: *"Botany Management Naval Auxiliary Landing Field San Clemente Island,"* \$87,768; *"Naval Base Coronado Dune Restoration and Sensitive Plant Species Surveys,"* \$36,580

Electrical & Computer Engineering

Dr. Baris Aksanli **Total: \$10,000**
CSU Fullerton Auxiliary Services Corporation: *"GE Digital CSU Innovation Design Challenge,"* \$10,000

Dr. Madhu Gupta **Total: \$140,614**
Minority Serving Institutions STEM R&D Consortium: *"RF/Optical Receiver Sensitivity Degradation from Exposure to High-Power Electrophogenic Pulses or Microwave Signals,"* \$140,614

Dr. Sunil Kumar **Total: \$243,000**
U.S. Air Force Research Laboratory: *"Prioritized, QoS-aware Information Transmission Over Congested/Contested Wireless Mesh,"* \$243,000

Dr. Sunil Kumar and Dr. Huu N. Nguyen **Total: \$163,297**
U.S. Air Force Research Laboratory: *"Design of Novel, Cross-Layer Neighbor Discovery Schemes for Directional Mesh Networks,"* \$163,297

Dr. Chunting C. Mi **Total: \$1,154,824**
Global Energy Interconnection Research Institute. North America: *"High Frequency High Power Density Compact High Voltage Switch Gear Wireless Power Transfer System,"* \$272,515

Gotion, Inc: *"Active Balancing Technology in BMS for Power Battery Systems,"* \$230,930

Huawei Technologies: *"200KW Wireless Charging System for EV Project,"* \$239,533

Rutgers University: *"Uncertainty Management and Proactive Maintenance for Lithium-ion Batteries in Electrified Vehicles,"* \$91,846

University of Michigan: *"Integrated Power and Thermal Management for Connected and Automated Vehicles (IPTM-CAV) Through Real-Time Adaptation and Optimization,"* \$250,000

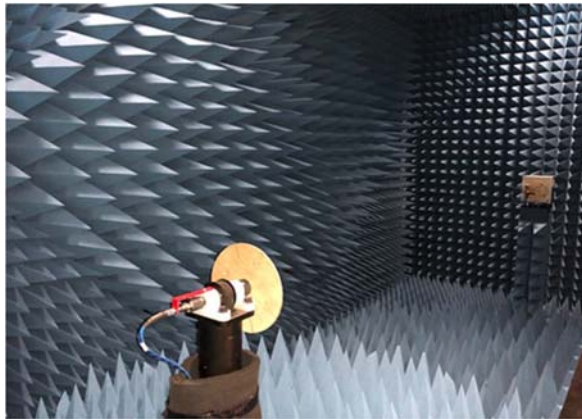
Awards Received July 1, 2017 - June 30, 2018

U.S. Department of Energy Argonne National Laboratory: *"High Power Wireless Charging System,"* \$70,000

Dr. Sridhar Seshagiri and Dr. Yusuf Ozturk **Total: \$22,113**
University of Central Florida: *"Solar Training and Education for Professionals (STEP),"* \$22,113

Dr. Satish Sharma **Total: \$152,224**
Fuse Integration: *"Resilient Directional Mesh Enhanced Tactical Airborne Networks,"* \$45,000

Space and Naval Warfare Systems Command: *"PWS 062 X-band Active Aperture Design and Measurement,"* \$107,224



Inside view of the anechoic chamber, Antenna and Microwave Lab
PI: Dr. Satish Sharma
Photo: Mr. Abdelkabir Sahnoun

Dr. Lal Tummala **Total: \$124,950**
Department of California Highway Patrol: *"Testing Services for Police Traffic Radar and Laser Speed Measuring Devices,"* \$124,950

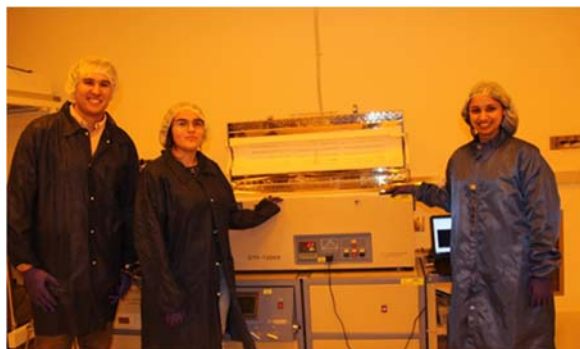
Mechanical Engineering

Dr. Asfaw Beyene **Total: \$255,792**
U.S. Department of Energy: *"Industrial Assessment Centers, SDSU,"* \$255,792

Dr. Subrata Bhattacharjee **Total: \$115,000**
National Aeronautics and Space Administration: *"Residence Time Driven Flame Spread Over Solid Fuels,"* \$115,000

Dr. Randall German and Dr. Eugene Olevsky **Total: \$125,000**
National Aeronautics and Space Administration: *"Multi-Scale Modeling and Experimentation on Liquid Phase Sintering in Gravity and Microgravity Environments,"* \$125,000

Dr. Samuel Kassegne **Total: \$321,735**
University of Washington: *"Engineering Research Center for Sensorimotor Neural Engineering,"*
\$321,735



Dr. Kassegne's NanoFab lab members Ryan Burks, Saray Vazquez, and Abhi Gautam with the PECVD (Plasma Enhanced Chemical Vapor Deposition) chamber in the SDSU's Cleanroom Facility
PI: Dr. Sam Kassegne
Photo: Debbie Brighton

Dr. Parag Katira **Total: \$143,797**
U.S. Army: *"Biomathematics: Predicting Tissue Dynamics based on Stochastic Variations in Cell Stiffness and Spatial Clustering within the Tissue Environment,"* \$143,797

Dr. Fletcher Miller **Total: \$223,910**
Excet Inc.: *Support to the Wildland-Urban Interface (WUI) Communities Research Program,"* \$136,362

San Diego State University: *"ARPA-E Focus Project Post-Doctoral Fellow,"* \$38,262

University of San Diego: *"Hybrid Solar Converter with Integrated Thermal Storage,"* \$49,286

Dr. Kee Moon **Total: \$171,511**
Amosense Co: *"Development of Sustainable Power Module for Implantable Medical Devices Based on Ultrasonic Wireless Power Transfer,"* \$112,611

Sejong University South Korea: *"Winter Program in SDSU,"* \$58,900

Dr. Khaled Morsi **Total: \$16,000**
National Science Foundation: *"Processing of Fully Dense Nanocomposites through Novel Design,"*
\$16,000

Dr. Eugene Olevsky **Total: \$154,079**
Minority Serving Institutions STEM R&D Consortium: *"Stable Manufacturing of Advanced Powder Components by Ultra-Rapid Pressure- and Field-Assisted Sintering,"* \$109,335

Rapid3materials LLC: *"Joining of Nuclear-Grade SiC-SiC Composites by Localized Spark-Plasma Sintering,"* \$44,744

Dr. George Youssef **Total: \$61,231**
Armorcast Products Company: *"Characterization of Creep Behavior of E-glass/Epoxy Composite Panels,"* \$26,697

National Aeronautics and Space Administration: *"Multifunctional Space Structures,"* \$16,000; *"Rim Driven Impeller Pumps for Space Applications,"* \$18,534