



UNIVERSITY OF
CENTRAL FLORIDA

Monthly New Awards - June 2017

Abouraddy, Ayman / Atia, George K.

Development of Diffraction-Free Space-Time Optical Beams

Office of Naval Research

\$58,817

College of Engineering and Computer Science - Department of Electrical and Computer Engineering / College of Optics and Photonics – CREOL

Abouraddy, Ayman / Bai, Yuanli / Li, Guifang

Strong, Ultra-Small Highly Integrated (SUSHI) Phase 2 Fiber Optic Cable (Prime 1)

Harris Corporation

\$363,621

College of Engineering and Computer Science - Mechanical and Aerospace Engineering / College of Optics and Photonics – CREOL

Amezcuca Correa, Rodrigo / Schulzgen, Axel

Negative Curvature Hollow Core Optical Fiber

SA Photonics

\$39,984

College of Optics and Photonics – CREOL

Amezcuca Correa, Rodrigo / Schulzgen, Axel

Scintillating Fiber

Saint Gobain

\$13,918

College of Optics and Photonics – CREOL

Carroll, Deborah Anne

2017 Orange County Capacity Building for Nonprofits

Orange County Board of Commissioners

\$50,000

College of Health and Public Affairs - Public Administration

Chumbimuni Torres, Karin Yanet / Kolpashchikov, Dmitry M.

A Universal Nucleic Acid Recognition Platform for Detection of Pathogenic Bacteria

National Science Foundation

\$199,923

College of Sciences – Chemistry

Cosby, Janel Johnson / Rosa-Lugo, Linda I.

Speech Perception, Cognitive Processing and Self-Reported Communication Abilities in Older Adults with Hearing Loss

UCF Foundation, Inc.

\$7,500

College of Health and Public Affairs - Communication Sciences and Disorders

Crotty, Marilyn

2018 John Scott Dailey Florida Institute of Government

Florida State University

\$19,500

College of Health and Public Affairs - Florida Institute of Government

del Barco, Enrique / Hernandez, Florencio E.

Physics Youth Scholastic and Instructing Camp for Orlando Scientists (PhYSICOS)

American Physical Society

\$5,000

College of Sciences – Chemistry - Physics

Dong, Yajie

Ultrabright Highly Efficient, Reliable Red, Green and Blue Quantum Dot Light Emitting Devices (QLEDs) for Advanced Display

BOE Technology Group Co., Ltd.

\$90,000

NanoScience Technology Center

Fathpour, Sasan

Integrated Optics for Single-Photon Nonlinear Interactions

Northwestern University

\$18,300

College of Optics and Photonics – CREOL

Garibay, Ivan I.

AWS Cloud Credits for Research Program

Amazon.com

\$20,000

College of Engineering and Computer Science - Industrial Engineering and Management Systems

Garibay, Ivan I.

Microsoft Azure Research Award

Microsoft Corporation

\$5,000

College of Engineering and Computer Science - Industrial Engineering and Management Systems

Kapat, Jayanta S.

Heat Transfer Coefficients in an Annular-Type Flow Cavity

Ansaldo Energia

\$111,375

College of Engineering and Computer Science - Center for Advanced Turbomachinery and Energy Research

Kibler, Kelly Maren / Chang, Ni-Bin / Wang, Dingbao

Innovative and Integrative BMPs for Surface and Groundwater Protection

Florida Department of Transportation

\$799,238

College of Engineering and Computer Science - Civil, Environmental, and Construction Engineering

Kuebler, Stephen M. / Fathpour, Sasan

Collaborative Research: Photon Funnel – A Fundamentally New Concept for Concentrating Light (ID: 1061581)

National Science Foundation

\$225,814

College of Optics and Photonics - CREOL / College of Sciences - Chemistry

Kumar, Ranganathan

Modeling Start-Up Transients of Multiphase Flow in Bitumen Pay Zone

Harris Corporation

\$50,000

College of Engineering and Computer Science - Mechanical and Aerospace Engineering

Mansfield, Katherine / Seney, Erin E.

2017 Marine Turtle Statewide Nesting Beach Surveys on Central Brevard County Beaches

Sea Turtle Conservancy

\$8,109

College of Sciences – Biology

Mansfield, Katherine / Seney, Erin E.

Monitoring Marine Turtles at Trident Basin and Patrick Air Force Base

U.S. Fish and Wildlife Service

\$65,019

College of Sciences – Biology

Mayo, Talea Lashea

UCF SOARS Satellite Program

University Corporation for Atmospheric Research

\$37,234

College of Engineering and Computer Science - Civil, Environmental, and Construction Engineering

McCauley, Pamela

African American Female Engineering Faculty in the Academy: What Does it Take To Succeed? A Workshop of Senior Women in the Academy

National Science Foundation

\$49,999

College of Engineering and Computer Science - Industrial Engineering and Management Systems

McIlvaine, Janet R.

Technical Assistance for High Performance Housing
Marshall Gobuty International U.S.A., Inc.
\$31,453
Florida Solar Energy Center

Medeiros, Stephen C.

FEMA Region II Storm Surge Sensitivity Analysis
Atkins North America, Inc.
\$25,000
College of Engineering and Computer Science - Civil, Environmental, and Construction Engineering

Nigusse, Bereket A.

Development of the Compliance Software Tool Assistance Manual for the 6th Edition (2017) Florida Building Code- Energy Conservation
Florida Department of Business and Professional Regulation
\$15,002
Florida Solar Energy Center

O'Neal, Thomas P.

GrowFL 2017 FloridaMakes Grant
FloridaMakes
\$300,000
College of Engineering and Computer Science - Industrial Engineering and Management Systems / Office of Research and Commercialization

Qi, GuoJun / Wang, Wei

RI: Medium: Collaborative Research: Understanding and Editing Visual Sentiment
National Science Foundation
\$160,288
College of Engineering and Computer Science - Department of Computer Science / College of Sciences - Psychology

Qu, Zhihua

Resilience and Mission Assurance of Intelligent Machines for Secure Internet of Things
University of South Florida
\$25,000
College of Engineering and Computer Science / Faculty Cluster Initiative - Renewable Energy Systems

Reinerman, Lauren / Matthews, Gerald

Operator Confidence Assessment (OCA) Concept Development
Soar Technology, Inc.
\$49,000
Institute for Simulation and Training - Prodigy Lab

Rivera, Manuel A. / Croes, Robertico

The Economic Potential of a Niche Market in Aruba: A Closer Look at Destination Weddings

Aruba Tourism Authority

\$25,000

Rosen College of Hospitality Management - Dick Pope, Sr. Institute for Tourism Studies

Santra, Swadeshmukul

Integrated management of bacterial diseases of fruiting vegetables in Ontario

University of Guelph

\$5,000

College of Sciences - Chemistry / NanoScience Technology Center

Seal, Sudipta

Advanced Burning Rate Additives for Airbag Propellants

Texas A&M Engineering Experiment Station

\$65,000

Advanced Materials Processing and Analysis Center / NanoScience Technology Center

Seal, Sudipta

Nanotechnology for Sustainable Soybean Production Under Biotic & Abiotic Stresses

University of Maryland/Eastern Shore

\$4,000

Advanced Materials Processing and Analysis Center / NanoScience Technology Center

Shuai, Zhisheng

Collaborative Research: Persistence, Stability and Control of Populations in Heterogeneous Networks

National Science Foundation

\$150,000

College of Sciences – Mathematics

Smith, Daniel J.

An Assessment of the Importance of Local Habitat Corridors used by Florida Panthers, the Impacts of Roads and Safe Crossing Needs in Collier, Hendry and Lee Counties

Florida Wildlife Federation

\$90,000

College of Sciences – Biology

Sohn, Yongho

Design-to-Component, Closed-Loop ICME Development of Additive Manufacturing Alloys for Naval Applications

Office of Naval Research

\$32,000

Advanced Materials Processing and Analysis Center

Sole, Mary L. / Talbert, Steven R.

Nursing Oral Suction Protocol Intervention to Reduce Aspiration and Ventilator Events

UCF Foundation, Inc.

\$4,726

College of Nursing

Stubbs, Jack

Stratasys Cloud 9 3D Printer

Stratasys, Ltd.

\$120,000

Institute for Simulation and Training

Vaidyanathan, Rajan

NASA SBIR Phase II Low Temperature Shape Memory Alloy Seal (Altius Machines)

Altius Space Machines, Inc.

\$172,018

Advanced Materials Processing and Analysis Center

Vaidyanathan, Rajan

Shape Memory Alloy Actuator for a Variable Conductance Radiator

Quest Thermal Group

\$30,000

Advanced Materials Processing and Analysis Center

Wang, Jun

SHF: Small: Developing a Highly Efficient and Accurate Approximation System for Warehouse-Scale Computers with the Sub-dataset Distribution Aware Approach

National Science Foundation

\$450,000

College of Engineering and Computer Science - Department of Electrical and Computer Engineering

Watson, Keri W. / French, Scot Andrew / Listengarten, Julia

The Big Read - The Beautiful Things That Heaven Bears

Arts Midwest

\$14,000

College of Arts and Humanities - History - School of Performing Arts - School of Visual Arts and Design (SVAD)

Wells, Adam J.

Beta-Alanine & Inflammation During a Simulated Military Operation

National Strength and Conditioning Association

\$23,990

College of Education and Human Performance - Educational and Human Sciences



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Monthly New Awards - July 2017

Abdolvand, Reza / Gong, Xun

Integrating High Frequency Whispering-Gallery-Mode Phononic Cavities with Efficient Electrically-Small Antennas: Pushing the Limits of Wireless Passive Micro-Sensing

National Science Foundation

\$380,000

College of Engineering and Computer Science - Department of Electrical and Computer Engineering

Amezcuia Correa, Rodrigo / Christodoulides, Demetrios N.

Tailoring Nonlinear Interactions in Highly-Multimode Fibers for Versatile Light Sources

National Science Foundation

\$359,961

College of Optics and Photonics - CREOL

Bowers, Clint A. / James, Nicholas T.

Quality of Life Enhancement Program for Older Adults Residing in Assisted Living Facilities

UCF Foundation, Inc.

\$3,000

College of Sciences - Psychology

Britt, Daniel T.

Science Team Support Lucy Phase B

Southwest Research Institute

\$7,443

College of Sciences - Physics

Christodoulides, Demetrios N.

Novel Nonlinear Optical Processes in Active, Random, and Nanostructures Systems

Georgia State University

\$274,000

College of Optics and Photonics – CREOL

Chung, Wingyan

Detecting Cognitive Hacking in the U.S. Financial Market: A Social Media Study

University of South Florida

\$45,662

Institute for Simulation and Training

Cole, Amy L. / Cole, Alexander M.

IAVI T001

Orlando Immunology Center

\$68,568

College of Medicine - School of Biomedical Science

Crotty, Marilyn

2018 John Scott Dailey Florida Institute of Government
Florida State University
\$85,000
College of Health and Public Affairs - Florida Institute of Government

Dechev, Damian

SHF: Small: Collaborative Research: PEGASUS: ProgrEss GuAranteeS for Universal tranSactions
National Science Foundation
\$216,000
College of Engineering and Computer Science - Department of Computer Science

Dong, Yajie

Flexible Quantum Dot Light Emitting Devices for Photodynamic Therapy and Photobiomodulation
Community Foundation of North Central Wisconsin
\$60,000
NanoScience Technology Center

Donley, Amy M.

Healthy Central Florida Eatonville 2017
Various
\$5,179
College of Sciences – Sociology

Eckhoff, Dawn

Parental Experiences, Understanding and Interpretation of Goal Setting: A Narrative Inquiry
American Association of Nurse Practitioners
\$2,500
College of Nursing

Garibay, Ivan I. / Garibay, Ozlem O.

EAGER: Defining, Measuring and Advancing University Economic Engagement: A Research Initiative for
Moving Forward Science and Innovation Policy
National Science Foundation
\$50,000
College of Engineering and Computer Science - Industrial Engineering and Management Systems / Office of
Research and Commercialization

Gaume, Romain / Christodoulides, Demetrios N. / Richardson, Kathleen A.

Perform a Trade-Study with Modeling and Simulation of High-Birefringent Infrared Materials
Lockheed Martin Missiles and Fire Control
\$25,000
Advanced Materials Processing and Analysis Center / College of Optics and Photonics - CREOL / NanoScience
Technology Center

Gurupur, Varadraj Prabhu

Decision Support System Extracting the ICD 10 Coding Semantics (ID: 1062941)

Tenosar Corporation

\$112,197

College of Health and Public Affairs (COHPA) - Health Management and Informatics

Gurupur, Varadraj Prabhu

Extending the Features of Strategic Resource Tool

Tenosar Corporation

\$5,783

College of Health and Public Affairs - Health Management and Informatics

Han, Deguang

Representation Frames and Applications

National Science Foundation

\$199,000

College of Sciences - Mathematics

Hara, Tadayuki

6th UNWTO International Conference on Tourism Statistics

United Nations World Tourism Organization

\$2,180

Rosen College of Hospitality Management - Tourism, Events and Attractions

Hoffman, Phil

American Graduate 2017 "Stories of Champions"

THIRTEEN Productions LLC

\$7,500

Division of Strategy, Marketing, Communications, and Admissions

Hoffman, Phil

General Program Support for WUCF TV 2017-2018

Florida Department of State

\$46,339

Division of Strategy, Marketing, Communications, and Admissions

Hu, Haiyan

ABI Innovation: Computational Methods to Study Gene Transcription Initiation Patterns

National Science Foundation

\$577,733

College of Engineering and Computer Science - Department of Computer Science

Jiang, Tengfei

Finite Element Analysis for ICAMR-Harris Ultra High Density Interposer

BRIDG

\$34,000

Advanced Materials Processing and Analysis Center

Kapat, Jayanta S.

SEC Project on Sustained Patent/Literature Search

Siemens Energy, Inc.

\$15,015

College of Engineering and Computer Science - Center for Advanced Turbomachinery and Energy Research

Khondaker, Saiful I. / Jung, YeonWoong

Towards Scalable Fabrication of Two-Dimensional Semiconductor Heterojunction Devices

National Science Foundation

\$399,908

NanoScience Technology Center

Kim, Brian

Monolithic Integration of 1000-ch Neural Interface System on a Single Silicon Die

National Science Foundation

\$79,532

College of Engineering and Computer Science - Department of Electrical and Computer Engineering / College of Medicine - School of Biomedical Science

Mohaisen, Abdelaziz Aziz

Data Provenance Assurance in Cloud Using Block Chain

Old Dominion University Research Foundation

\$76,500

College of Engineering and Computer Science (CECS) - Department of Computer Science / Faculty Cluster Initiative - Cyber Security and Privacy

O'Neal, Thomas P.

GrowFL 2017 FloridaMakes Grant

FloridaMakes

\$300,000

College of Engineering and Computer Science - Industrial Engineering and Management Systems / Office of Research and Commercialization

O'Neal, Thomas P.

NEC: Minority Owned Business, Women Owned Business Technology and Innovation Startup Initiative

Florida Department of Economic Opportunity

\$250,000

College of Engineering and Computer Science - Industrial Engineering and Management Systems / Office of Research and Commercialization

Parks, Griffith Davis

The Potency of a Novel Virus for Targeted Killing of Cancer Cells is Enhanced by Combined Treatment with Cisplatin

Circle of Hope for Cancer Research, Inc.

\$8,000

College of Medicine - School of Biomedical Science

Pasarica, Magdalena

Patient Empowered Strategy to Reduce Asthma Morbidity in Highly Impacted Populations

American Academy of Family Physicians

\$4,000

College of Medicine - Medical Education

Pensky, Marianna Y.

Non-parametric Methods for Analysis of Time-Varying Network Data

National Science Foundation

\$280,000

College of Sciences - Mathematics

Raghavan, Seetha / O'Neal, Thomas P. / Schulzgen, Axel

Multi-Scale and In-Situ Sensing Technology for Structural Integrity

National Science Foundation

\$199,988

Center for Innovation and Entrepreneurship / College of Engineering and Computer Science - Center for Advanced Turbomachinery and Energy Research - Mechanical and Aerospace Engineering / College of Optics and Photonics – CREOL

Rahman, Talat S.

Collaborative Research: Connecting Mesoscopic Dynamics of Metallic Films on Semiconductors to Nanoscale Phenomena

National Science Foundation

\$162,321

College of Sciences - Physics / Faculty Cluster Initiative - Energy Conversion and Propulsion

Rahnavard, Nazanin

CIF: Small: A Tensor-based Framework for Reliable Radio Cartography

National Science Foundation

\$395,283

College of Engineering and Computer Science - Department of Electrical and Computer Engineering

Raissi, Ali / Brooker, R. Paul / Muradov, Nazim / Qin, Nan

GRT – Sour Gas Cleanup

Green Recycling Technologies, LLC

\$263,062

Florida Solar Energy Center

Raustad, Richard A.

Performance Testing of SolAire Solar AC

SolAire Technologies Limited

\$36,439

Florida Solar Energy Center

Reynolds, Kenneth M.

Collaboration Between UCF and Law Enforcement Technology, Training, & Research Support
Center for Law Enforcement Technology, Training and Research Incorporated
\$30,000
College of Health and Public Affairs - Criminal Justice

Richardson, Kathleen A.

Large-Scale, Reconfigurable and Multifunctional 2.5-D Conformal Optics
Massachusetts Institute of Technology
\$75,818
College of Optics and Photonics - CREOL

Schober, Constance M.

Modeling and Forecasting Rogue Waves in Deep Water
Simons Foundation
\$42,000
College of Sciences – Mathematics

Schulzgen, Axel

Multicore Fiber for Sensor Applications
Multicore Photonics Inc.
\$3,434
College of Optics and Photonics - CREOL

Szalma, James L.

Training for Vigilance Using a Video Game-Based Task: Distinguishing Structural from Energetic Task
Components
U.S. Army Research Office
\$150,000
College of Sciences - Psychology

Turgut, Damla

FraudHunt: Online Crowdsourced Fraud Attribution
University of South Florida
\$25,000
College of Engineering and Computer Science - Department of Computer Science

Valliyil Thankachan, Sharma

Medium Collaborative Research: Sequential and Parallel Algorithms for Approximate Sequence Matching
with Applications to Computational Biology
National Science Foundation
\$290,000
College of Engineering and Computer Science - Department of Computer Science

Vanstryland, Eric W. / Hagan, David J.

Measurement of the Nonlinear Refractive Index of Air in the mid-ir Around 3.5 microns
Defense Advanced Research Projects Agency
\$100,000
College of Optics and Photonics – CREOL

Vasu Sumathi, Subith

High Inlet Temperature Combustor for Direct Fired Supercritical Oxy-Combustion-Phase 2

Southwest Research Institute

\$40,000

College of Engineering and Computer Science - Center for Advanced Turbomachinery and Energy Research /
Mechanical and Aerospace Engineering

Vasu Sumathi, Subith / Mukherjee, Jaydeep

Student Travel Support for HASP 2017 Flight Related Activities

NASA Shared Services Center

\$5,250

College of Engineering and Computer Science - Center for Advanced Turbomachinery and Energy Research /
Florida Space Institute - Florida Space Grant Consortium

Yuan, Jiann-Shiun

Securing the Internet of Things (IoT) from the Hardware and Deep Learning Perspectives

University of South Florida

\$30,000

College of Engineering and Computer Science - Department of Electrical and Computer Engineering