



UNIVERSITY OF
CENTRAL FLORIDA

Monthly New Awards - October 2017

Abdel-Aty, Mohamed A. / Radwan, Ahmed E.

Safety Research Using Simulation (SAFER-SIM)

University of Iowa

\$266,418

College of Engineering and Computer Science - Center for Advanced Transportation Systems
Simulation

Aldarondo-Jeffries, Michael E.

Ronald E. McNair Postbaccalaureate Achievement Program

U.S. Department of Education

\$237,544

Office of Undergraduate Studies - McNair and RAMP

Beazley, Melanie J.

Orange County Environmental Water Study 2017

Orange County Board of Commissioners

\$9,100

College of Sciences – Chemistry

Beidel, Deborah Casamassa

UCF RESTORES

Central Florida Cares Health System, Inc.

\$1,000,000

College of Sciences - Psychology

Branting, Scott / Kider Jr., Joseph Theodore / Walters, Lori C.

Documenting and Triaging Cultural Heritage (DATCH): Using Mixed Reality for Damage Assessment
and Digital Preservation

National Endowment for the Humanities

\$74,916

College of Sciences - Anthropology / College of Arts and Humanities - History / Institute for
Simulation and Training

Bridge, Candice M.

A Novel Approach to Automotive Paint Analysis using Direct Analysis in Real Time Mass Spectrometry
The Forensic Sciences Foundation, Inc.

\$4,800

College of Sciences - Chemistry / National Center for Forensic Science

Campbell, Laurie OMalley / Lambie, Glenn William

Reading Assessment Validity, Program Fidelity and Teacher Effectiveness

The Imagination Station

\$756,251

College of Education and Human Performance - Educational and Human Sciences / College of Education and Human Performance - Child, Family and Community Sciences

Chang, Zenghu

High Power Phase-Stabilized Few-Cycle Mid-IR Laser

U.S. Air Force Research Laboratory

\$426,193

College of Optics and Photonics - CREOL / College of Sciences – Physics

Chung, Wingyan / Mustaine, Elizabeth E.

SimON: Accurate and Scalable Simulation of Influence in Online Social Networks

Defense Advanced Research Projects Agency

\$6,316,764

Institute for Simulation and Training / College of Sciences – Sociology

Colon, Carlos J.

Technical Assistance to Southern Research for the Demonstration of Photovoltaic Assisted Heat Pump Water Heater

Southern Research Institute

\$11,598

Florida Solar Energy Center

Davis, Kristopher Olan / Guo, Siyu / Schneller, Eric

Characterization of Contact Degradation in c-Si PV Modules

U.S. Department of Energy

\$809,934

Florida Solar Energy Center

Dimitrovski, Aleksandar

Dynamically Adaptive Parareal in Time Algorithm for Fast Power System Transient Simulations

UT-Battelle, LLC / Oak Ridge National Laboratory (ORNL)

\$50,000

College of Engineering and Computer Science - Department of Electrical and Computer Engineering / Faculty Cluster Initiative - Renewable Energy Systems

Dobson, Doug

Social Studies Teacher-to-Teacher Collaboration

Constitutional Rights Foundation

\$16,000

College of Sciences - Political Science

Dogariu, Aristide / Han, Kyu Young

Electrodynamically Mediated Energy Transduction in Cytoskeleton

Defense Advanced Research Projects Agency

\$138,873

College of Optics and Photonics – CREOL

Donley, Amy M.

Tobacco Scans 2017

Orange County Board of Commissioners

\$3,955

College of Sciences – Sociology

Driggers, Ronald G.

Ron Driggers IMEC Support

IMEC

\$56,700

College of Optics and Photonics - CREOL

Dvorak, Robert

Increasing Children's Defending Behaviors: Using Deviance Regulation Theory to Combat Bullying

Auburn University

\$58,852

College of Sciences – Psychology

Fan, Deliang

Non-Volatile In-Memory Processing Unit: Memory, In-Memory Logic and Deep Neural Network

National Science Foundation

\$184,470

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

Glebov, Leonid B. / Divliansky, Ivan

Development of Photo-Thermo-Refractive Glass for High Efficiency Volume Holographic Elements

IPG Photonics

\$280,000

College of Optics and Photonics - CREOL

Gong, Boqing / Shah, Mubarak A / Wang, Liqiang

Big Data: IA: Distributed Semi-Supervised Training of Deep Models and Its Applications in Video

Understanding

National Science Foundation

\$662,431

Center for Research in Computer Vision / College of Engineering and Computer Science - Department of Computer Science

Gordon, Ali P.

Application of Non-Interaction Approach for Temperature- Dependent, Cyclic Crystal Viscoplasticity
Modeling of SX and DS Ni-base Superalloys

Doosan Heavy Industries and Construction Company

\$175,785

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

Gryglewicz, Kimberley Ann

Florida Implementation of the National Strategy for Suicide Prevention

Substance Abuse and Mental Health Services Administration

\$942,000

College of Health and Public Affairs (COHPA) - Social Work

Hagedorn, W. Bryce / Joe, Jacqueline Richelle / Jones, Karyn D. / Kelchner, Viki Price

Behavioral Health Workforce Education and Training Program

Health Resources and Services Administration

\$1,912,284

College of Education and Human Performance - Child, Family and Community Sciences

Hawthorne, Timothy Lee

Diocese of Orlando Boundary Mapping Project (ID: 1063600)

Diocese of Orlando

\$8,421

College of Sciences - Sociology

Hoffman, Phil

Ready to Learn CC-ELM Planning Grant

Corporation for Public Broadcasting

\$5,000

Division of Strategy, Marketing, Communications, and Admissions

Kassab, Alain J. / Dickerson, Andrew K. / Xu, Yunjun

Aerospace & Defense Fundamental Research Project

Lockheed Martin Missiles and Fire Control

\$25,000

College of Engineering and Computer Science - Mechanical and Aerospace Engineering / Faculty
Cluster Initiative - Prosthetic Interface

Kinchen, Elizabeth V.

The Preservation of Holistic Nursing Values in Nurse Practitioner Care

Florida Organization of Nurse Executives

\$2,000

College of Nursing

LaMee, Adam Allen

ORAU Travel grant - Scientific Computing Opportunities for K12
Oak Ridge Associated Universities
\$800
College of Sciences - Physics

Lee, Gene H. / Rabelo, Luis C.

Research on Implementation Issues in Multi-Resolution Combat Modeling
Real Time Visual
\$200,000
College of Engineering and Computer Science - Industrial Engineering and Management Systems

Li, Guifang

Towards AO-Free FSO Communication
U.S. Army Research Office
\$60,000
College of Optics and Photonics – CREOL

Li, Guifang / Amezcua Correa, Rodrigo

Beamforming Techniques for Focusing Light Through Atmospheric Turbulence
U.S. Army Research Office
\$190,556
College of Optics and Photonics – CREOL

Lyakh, Arkadiy

Two-Color QCL-Based Pixel Development
Attollo Engineering, LLC
\$60,000
NanoScience Technology Center

Lyakh, Arkadiy / Vodopyanov, Konstantin L.

Rugged, Chip-scale, Optical Frequency Combs for Real-World Applications
Pranalytica, Inc.
\$300,000
NanoScience Technology Center / College of Optics and Photonics - CREOL

Macy, Marisa Angela / Culp, Anne McDonald

TATS FY 2017-2018
Florida Department of Education
\$993,750
College of Education and Human Performance - Child, Family and Community Sciences

Martin, Eric D. / Chasar, David A. / Sonne, Jeffrey K. / Withers, Charles R.

Characterization of Indoor Air Quality in New Homes in the Southeastern United States
U.S. Department of Energy
\$573,532
Florida Solar Energy Center

Martin, Eric D. / Fenaughty, Karen F. / McIlvaine, Janet R. / Parker, Danny S.

Using Supplemental Mini-Split Heat Pumps to Improve Comfort and Efficiency in Low-Load Existing Homes

U.S. Department of Energy

\$163,410

Florida Solar Energy Center

Meehan, Kevin V.

Fulbright Grant - Dr. Kevin Meehan

Institute of International Education

\$66,440

College of Arts and Humanities - English

Metcalf, David S.

Innovation Florida- Visioning, Strategy, and Support

West Florida Health Network, LLC

\$3,850

Institute for Simulation and Training

Metcalf, David S.

Patient and Robot Interactions in Clinical Settings - Phase 2

ConSystem AI, LLC

\$18,000

Institute for Simulation and Training

Moreto, William De Jesus

Ranger Perception Study Student Support

World Wide Fund for Nature (Singapore) Limited

\$14,936

College of Health and Public Affairs - Criminal Justice

Mouton, Christine M.

Victim of Crime Act Grant

Florida Office of the Attorney General

\$101,790

Administration and Finance – Police

O'Neal, Thomas P.

NEC City of Orlando Funding 2017-2018

City of Orlando

\$150,000

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

Office of Research and Commercialization

O'Neal, Thomas P.

Orlando Incubator 2017- 2018

City of Orlando

\$349,456

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

O'Neal, Thomas P. / Rodriguez, Juan Oscar

VentureWell Faculty Fellowship

Venture Well

\$10,000

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

Pourmohammadi Fallah, Yaser

Vehicle-to-Vehicle Communication Research: Simulation Development for Scalability (Year 2)

Crash Avoidance Metrics Partners LLC

\$128,428

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

Qj, Yuanwei

Traveling Wave Solutions of Gray-Scott Model-Existence and Multiplicity

Simons Foundation

\$42,000

College of Sciences – Mathematics

Raghavan, Seetha / Ghosh, Ranajay

In-Situ Optical Monitoring of Gas Turbine Blade Coatings under Operational Extreme Environments

U.S. Department of Energy/National Energy Technology Laboratory

\$600,000

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

Rosenbaum, Mark Howard

Info/Cyber Security& Privacy Violations: Who Are The Computing Practitioners That Commit These
Violations Osiason Educational Foundation

\$240,000

College of Engineering and Computer Science - Department of Computer Science

Saint Benoit, Tracy Anne

Developing Assessments & Data Collection Methodologies for Training and Education in Support of
Special Operations for Social Cultural Intelligence of the Battlespace (ID: 1063346)

U.S. Army Research Office

\$195,000

College of Education and Human Performance - Education Dean's Office

Schreiber, Jeanette / Wilkes, Kathy J,

FY 2018 FLDOH State Contract - Children's Medical Services PCMH

Florida Department of Health

\$255,000

College of Medicine - Medical Education / Medicine Dean's Office

Schreiber, Jeanette / Wilkes, Kathy J.

FY 2018 FLDOH State Contract - Colorectal Cancer Control Program

Florida Department of Health

\$420,000

College of Medicine - Medical Education / Medicine Dean's Office

Schreiber, Jeanette / Wilkes, Kathy J.

FY 2018 FLDOH State Contract - PCMH Education and Consultation Services

Florida Department of Health

\$250,000

College of Medicine - Medical Education / Medicine Dean's Office

Smith, Eileen M.

Schlumberger Service Order #5: Rig VR Environments (three) from SO3

Schlumberger Technology Corporation

\$113,985

Institute for Simulation and Training - E2i Creative Studio

Sohn, Yongho / Coffey, Kevin R. / Kumar, Ranganathan

Agile Manufacturing Science and Technology Innovation for Advanced Materials and Materials Processing

U.S. Army Research Laboratory

\$3,798,361

Advanced Materials Processing and Analysis Center / College of Engineering and Computer Science - Mechanical and Aerospace Engineering

Stock, Matt S.

The Time Course of Motor Unit Adaptations Associated with Disuse

De Luca Foundation

\$15,000

College of Health and Public Affairs - Health Professions

Walters, Joseph W. / Davis, Kristopher Olan

Predictive Module Degradation and Failure Identification Solution

APECOR

\$48,214

Florida Solar Energy Center

Watson, Keri W.

Fulbright Grant

Institute of International Education

\$48,700

College of Arts and Humanities - School of Visual Arts and Design

Wilson, Bruce M.

Elevating Water Rights to Human Rights: Has it Strengthened Marginalized Peoples' Claim for Water?

Chr. Michelsen Institute

\$56,355

College of Sciences - Political Science

Wu, Dazhong

Cloud-Enabled Machines with Data-Driven Intelligence

Pennsylvania State University

\$150,000

College of Engineering and Computer Science - Mechanical and Aerospace Engineering

Zin, Ngwe Soe Josh / Davis, Kristopher Olan / Schoenfeld, Winston V.

Unlocking the High Efficiency Potential of Bifacial Silicon Solar Cells by Advanced but Simplified Techniques

Florida Department of Agriculture and Consumer Services

\$400,000

Florida Solar Energy Center



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Ahmed, Kareem A. / Blair, Richard George / Kapat, Jayanta S. / Vasu Sumathi, Subith

Multitude Characterization and Prediction of DOE Advanced Biofuels Properties

U.S. Department of Energy

\$894,336

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

Almagro-Moreno, Salvador

Genomic Adaptations of *Vibrio Vulnificus* Allowing Host Microbiome Invasion During Pathogenic Infection

United States-Israel Binational Science Foundation

\$30,000

College of Medicine - School of Biomedical Science

Amezcuca Correa, Rodrigo / Schulzgen, Axel

Antiresonant Hollow Core Fibers for Extreme Light Propagation

U.S. Army Research Office

\$389,600

College of Optics and Photonics - CREOL

Bass, Michael

Modeling Studies of Yb-Doped Slab Amplifiers to Determine Spatially Resolved Inversion and Spatially Resolved Gain Profile, Deriving Influence on Amplified Beam Profile as well as Deriving Origins

TRUMPF, Inc.

\$49,449

College of Optics and Photonics - CREOL

Blair, Richard George

Technology Translation: Demonstration and Validation of a Novel Field Drug Test System for Law Enforcement

National Science Foundation

\$200,000

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

Burke, Shawn

JJHWS Behavior Change App Evaluation

Merging Traffic

\$25,000

Institute for Simulation and Training – Dept. of Human Systems Integration Research

Chambers, Lisa

Marsh to Mangrove Habitat Switching: Increasing the Coastal Carbon Sink?
University of South Florida
\$245,394
College of Sciences - Biology

Christodoulides, Demetrios N. / Khjavikhan, Mercedeh

Supersymmetry in Optics & Photonics
U.S. Army Research Office
\$300,000
College of Optics and Photonics - CREOL

Coffey, Kevin R. / Jiang, Tengfei / Kaden, William Edward / Mucciolo, Eduardo R. / Schelling, Patrick K.

Collaborative Research: Type I: Interconnects Beyond Cu
National Science Foundation
\$75,499
Advanced Materials Processing and Analysis Center / College of Sciences - Physics

Crabbs, Robert F.

Laser Testing Support
U.S. Air Force
\$80,656
College of Optics and Photonics - CREOL

Ellis, Amy Beth

Center for Community Schools
Florida Department of Education
\$46,250
College of Health and Public Affairs

Fiore, Stephen M.

Team Science Training for Virginia Marine Science Graduate Student Education
Virginia Institute of Marine Science
\$67,227
College of Arts and Humanities - Philosophy / Institute for Simulation and Training

Giroux, Amy L.

IPA Agreement
U.S. Department of Veterans Affairs
\$25,493
College of Arts and Humanities - Arts Dean's Office

Hamilton, Angela Catherine

JHWS Behavior Change App Development and Testing
Merging Traffic
\$30,000
Institute for Simulation and Training - Mixed Emerging Technology Integration Lab

Huang, Helen J / Huang, Hsin-Hsiung / Thiamwong, Ladda

Adaptation of Brain and Body Responses to Perturbations During Gait in Young and Older Adults
National Institutes of Health

\$1,494,714

College of Engineering and Computer Science - Mechanical and Aerospace Engineering / College of
Nursing - Nursing / College of Sciences - Statistics and Actuarial Science

Jin, Yier / Zhang, Teng

Security Certification of Autonomous CyberPhysical Systems
National Science Foundation

\$830,649

College of Engineering and Computer Science - Department of Electrical and Computer Engineering /
College of Sciences - Mathematics

Katsevich, Alexander I

Development of Novel CT Data Imaging Algorithms
iTomography Corp.

\$85,168

College of Sciences - Mathematics

Kent-Walsh, Jennifer E.

FAAST Atlantic Regional Demonstration Center Project 2017-2018
Florida Alliance for Assistive Services and Technology, Inc.

\$18,375

College of Health and Public Affairs - Communication Sciences and Disorders

Khajavikhan, Mercedeh

EAGER: Fundamental Considerations in Using Non-Hermitian Microscale Resonant Optical Structures
for Rotation Sensing

National Science Foundation

\$200,000

College of Optics and Photonics - CREOL

Khaled, Annette

Inhibiting Protein-Folding Activity for the Treatment of Metastatic Breast Cancer
Breast Cancer Research Foundation

\$250,000

College of Medicine - School of Biomedical Science

Lamanna, Jacqueline M. / Conner, Norma E. / Loerzel, Victoria / Valenti, Michael T.

The Invisible Man: Lived Experiences of Older Male Caregivers
American Nurses Foundation

\$5,000

College of Nursing

Nutta, Joyce W. / Johnson, Jerry / Mihai, Florin / Purmensky, Kerry

Dual Language Support through Technology Enhanced Programs and Strategies

U.S. Department of Education

\$2,691,313

College of Education and Human Performance - School of Teaching, Learning and Leadership / College of Arts and Humanities - Modern Languages and Literatures

Qu, Zhihua / Dimitrovski, Aleksandar / Reedy, Robert Martin / Sun, Wei / Zhou, Qun

Scalable/Secure Cooperative Algorithms and Framework for Extremely-high Penetration Solar Integration (SolarExPert)

U.S. Department of Energy

\$1,275,000

College of Engineering and Computer Science (CECS) - Department of Electrical and Computer Engineering / Faculty Cluster Initiative - Renewable Energy Systems / Florida Solar Energy Center

Raghavan, Seetha

FSGC Advanced Thermal and Environmental Barrier Coating Configurations for Durability in Reusable Systems under Extreme Environments

NASA Shared Services Center

\$25,000

College of Engineering and Computer Science - Mechanical and Aerospace Engineering

Richardson, Martin C.

High Power Thulium Laser Marking System Development for Visibly Transparent Polymers

EoL Co., Ltd.

\$72,000

College of Optics and Photonics - CREOL

Schleith, Susan T.

Connecting Communities with Opportunities for Success

Battelle Memorial Institute

\$50,000

Florida Solar Energy Center

Seal, Sudipta / Branting, Scott / Roy, Tania / Sohn, Yongho

MRI: Acquisition of State of the Art Imaging X-Ray Photoelectron Spectroscopy: Integrating Nanotechnology, Catalysis, Physics, Manufacturing and Archaeological Research & Education
National Science Foundation

\$629,650

Advanced Materials Processing and Analysis Center / NanoScience Technology Center / College of Sciences – Anthropology

Sohn, Yongho

CMAS and Heavy Fuel Oil Corrosion Resistance Test of Thermal Barrier Coatings for Gas Turbine Applications

Doosan Heavy Industries and Construction Company

\$58,252

Advanced Materials Processing and Analysis Center

Sohn, Yongho / Coffey, Kevin R.

Mechanisms of Retention and Transport of Fission Products in Virgin and Irradiated Nuclear Graphite

U.S. Department of Energy

\$239,281

Advanced Materials Processing and Analysis Center

Vodopyanov, Konstantin L.

Fundamental Studies of Nonlinear Optics and Laser-plasma Phenomena in Gases and Solids Using High-Power LWIR Lasers

The Regents of The University of California

\$100,000

College of Optics and Photonics - CREOL

Wahl, Thomas

An Indicator for U.S. Coastal Extreme Sea Levels

National Oceanic and Atmospheric Administration

\$266,473

College of Engineering and Computer Science - Civil, Environmental, and Construction Engineering / Faculty Cluster Initiative - Sustainable Coastal Systems

Wells, Adam J.

Effects of a Simulated Soccer Match on Neuropsychological and Cognitive Function: A Pilot Study

American Athletic Conference Academic Consortium

\$8,000

College of Education and Human Performance - Educational and Human Sciences