ORED Communicator - November 2016

Office of Research and Economic Development, Florida International University

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Faculty from FIU’s School of Computing and Information Sciences (SCIS) and its STEM Transformation Institute recently launched Florida IT Pathways to Success (Flit-Path), an exciting collaboration with colleagues at the University of Central Florida (UCF) and the University of South Florida (USF). With a five-year, $5 million award through the National Science Foundation’s (NSF) highly competitive and prestigious Scholarships in Science, Technology, Engineering, and Mathematics Program (S-STEM), the university partners will complete a longitudinal study of the impact of implementation of evidence-based practices on recruitment, retention, and graduation in three IT-related disciplines: Computer Science, Information Technology, and Computer Engineering. Grant funds will support student scholarships and research activities.

Across the three participating universities, Flit-Path plans to recruit more than 450 academically talented students in need of financial assistance who are interested in careers in computer science, information technology, or computer engineering. The cohorts of participating students will match the diverse demographic profiles of students at FIU, UCF, and USF. To boost retention and maximize student success, existing evidence-based practices will be expanded to include activities such as tutoring in foundation courses, more robust academic advising, faculty/peer mentoring, and career pathway support. Flit-Path will also focus on enhancing student engagement by promoting community building, helping students develop senses of shared competence and identities in their IT-related fields. As a result, retention and graduation rates for Flit-Path participants are expected to increase considerably. Moreover, results will enhance the knowledge base as to the cumulative and relative effects of Flit-Path experiences on outcomes such as computing identity and job placement.

The multi-university project team is led by Principal Investigator Mark A. Weiss, PhD, Eminent Scholar Chaired Professor and Associate Director in the SCIS, and Co-PI, Zahra Hazari, PhD, Associate Professor, STEM Transformation Institute. Dr. Weiss’ contributions to the field of computer science education have earned international recognition, including the Association for Computing Machinery (ACM) Distinguished Educator Award (2011) and its SIGCSE Award for Outstanding Contribution to Computer Science Education (2015), which has been awarded annually to a single individual world-wide since 1981. In 2012, Dr. Weiss was named a Fellow of the American Association for the Advancement of Science (AAAS).

Dr. Hazari, an associate professor in the Department of Teaching and Learning and the STEM Transformation Institute and an affiliate faculty member in the Department of Physics, will lead Flit-Path’s research activities. Highly regarded as an expert in STEM education research, Dr. Hazari’s research is funded by multiple federal grants, including a NSF CAREER award. Her research findings have been reported in top-tier journals, cited in national publications, and featured in Science Magazine, Scientific American, LiveScience, Science for the People, and APS News.
Upcoming Events

November 2016

- **November 2, 3 to 4:30 pm, AHC4 #402**, IACUC Ethics (fulfills RCR Continuing Education hours), kindly contact Elvia (Eva) Molina at molinae@fiu.edu to register
- **November 4, 10 am to 12 noon, AHC4 #402**, Informed Consent (fulfills RCR Continuing Education hours), kindly contact Elvia (Eva) Molina at molinae@fiu.edu to register
- **November 4, 2 to 3 pm, ECS 241**, SmartGeo: Toward the Development of Intelligent Geosystems, presented by Tracy Camp
- **November 8, 12 to 1 pm, AHC 3 #101**, Bayesian Big Data Analytics in Biomedical Research: Understanding Gene-Gene and Gene-Environment Interactions in Brain Tumor, presented by Changwon Yoo, please RSVP by 11/7
- **November 9, 3 to 4:30 pm, AHC4 #402**, Biosafety Protection and Research with rDNA/SNA (IBC)—fulfills RCR Continuing Education hours—kindly contact Elvia (Eva) Molina at molinae@fiu.edu to register
- **November 12, 2 to 3 pm, ECS 349**, Calculating Bounds on Information Leakage using Two-Bit Patterns, presented by Ziyuan Meng

Awards Received—September 2016

FIU researchers were awarded $17,638,444 in September 2016. Below is a listing of awards received.

**Alastair Harborne**
Biology
Initial
Nature Conservancy
Caribbean OU-Mapping Ocean Wealth

$25,000

**Amaury A Caballero**
Elec and Computer Eng
Initial
Miami-Dade County Public Schools
Electrical Wiring Program for SED Students

$77,000

**Amy R Paul Ward**
Nursing PhD Program
Increase
U.S. Department of Education
Preparing Occupational Therapists to Practice in Schools (POPS)

$71

**Andres Tremante**
Mechanical and Mat Engineering
Initial
City of Sweetwater
University City Sweetwater Cost share

$55,000

**Anna H Wachnicka Kosiorek**
Southeast Env Research Ctr
Supplemental
U.S. Geological Survey
Effects of Sea Level Rise, Climate Variability and Humans on Coastal

$40,994
Anna H Wachnicka Kosiorek  
Southeast Env Research Ctr  
Initial  
National Park Service  
Natural Resource Condition Assessment for Three Parks within the U.S.V.I. $212,299

Arif Islam Sarwat  
Elec and Computer Eng  
Initial  
Florida Power and Light  
Smart Grid Technology Evaluation and Reliability $70,000

Arvind Agarwal  
Engineering Deans Office  
Agreement  
Magic Leap Inc  
Change Order No. 1 to Statement of Work #1: Increase by $12500 KAI $12,500

Arvind Agarwal  
Engineering Deans Office  
Initial  
Northeastern University  
Engineered Materials and Materials Design of Engineered Materials $100,000

Assefa Melesse  
Earth and Environment  
Initial  
University of California Davis  
Response of River Discharge to the Eco-environmental Vulnerability of Guna $19,993

Benjamin Boesl  
Mechanical and Mat Engineering  
Continuation  
Federal Aviation Administration  
Effect of Surface Contamination on Composite Bond Integrity and Durability $47,383

Bethany Catherine Sutherland  
Psychology  
Continuation  
Child Health and Human Development  
Effects of Social Cues on Learning and Memory during Early Infancy $71,775

Brian Fonseca  
J Gordon Ins Pub Pol and Citi  
Continuation  
Defense Intelligence Agency  
Program in National Security Studies $118,513

Bruce Mc Cord  
Chemistry  
Continuation  
National Institute of Justice  
DNA methylation analysis using High Resolution Melt for body fluid $50,000

For updates, corrections, suggestions, and/or general comments, please email Mercedes.rodriguez@fiu.edu
Casey Steadman  
The Wolfsonian  
Increase  
FIU Foundation  
Knight Museum of Ideas Fund  

Christine Lisetti  
Computer Info Sciences  
Continuation  
Rutgers State University  
Interactive Virtual Training (IVT) for Early Career Teachers in High Poverty Schools  

Chunlei Wang  
Mechanical and Mat Engineering  
Pre-Award  
North Carolina State University  
Advanced Self-Powered Systems of Integrated Sensor Technologies (ASSIST)  

Daniel Gann  
Library Operations  
Increase  
U.S. Army Corps of Engineers  
Monitoring of Tree Island Condition in the Southern Everglades  

Dwayne E McDaniel  
ARC Applied Research Center  
Continuation  
Federal Aviation Administration  
Effect of Surface Contamination on Composite Bond Integrity and Durability  

Edward P Murray  
Metropolitan Center  
Increase  
University of Miami  
Miami Dade PHCD Housing Studies  

Edward P Murray  
Metropolitan Center  
Initial  
City of Doral  
City of Doral Economic Analysis Services 2016-2017  

Elisa M Trucco  
Psychology  
Continuation  
Alcohol Abuse and Alcoholism  
Environment, Genes, and Temperament on the Development of Alcohol Use Disorder  

Hoshang Jehangir Unwalla  
COM Immunology  
Initial  
National Institutes of Health  
Tracheobronchial mucociliary dysfunction in HIV patients  

$68,062  
$137,262  
$15,000  
$18,261  
$27,617  
$35,000  
$20,000  
$167,549  
$226,705
James Fourqurean  
Biology  
Initial National Park Service  
The South Florida Caribbean Inventory and Monitoring Network Youth $51,000

James Fourqurean  
Biology  
Increase National Oceanic and Atmospheric Admin  
MOU between DOC, NOAA, NOS, ONMS & FKNMS $1,156,948

Jay Sah  
Southeast Env Research Ctr  
Increase U.S. Army Corps of Engineers  
Landscape pattern - Marl Prairie/Slough Gradients $96,280

Jay Sah  
Southeast Env Research Ctr  
Supplemental U.S. Army Corps of Engineers  
Landscape Pattern- Ridge, Slough, and Tree Island Mosaics $91,690

Jay Sah  
Southeast Env Research Ctr  
Increase U.S. Army Corps of Engineers  
Monitoring of Tree Island Condition in the Southern Everglades $74,406

Jay Sah  
Southeast Env Research Ctr  
Initial National Park Service  
Vegetation Study within the Current and Adjoining Potential Habitat $100,000

Jeannette Cruz  
Multicultural Programs BBC  
Continuation Office of Postsecondary Education  
Student Support Services 2015-2020 $226,600

Jennifer Richards  
Biology  
Initial National Park Service  
Lygodium microphyllum regrowth and spread after burning $44,963

Jeremy Wayne Chambers  
COM Cell Biology and Pharm  
Initial Michael J. Fox Foundation for Parkinson  
Mitochondrial outer membrane signaling as therapeutic targets $200,000
Jessy Devieux  
Health Promo and Disease Prev  
Initial  
University of Florida  
Effects of experimentally-induced reductions in alcohol consumption  
$52,922

Joel Trexler  
Biology  
Initial  
National Park Service  
Analyzing the Impact of Changing Hydrologic Conditions  
$198,309

Juan Pablo Sarmiento  
Extreme Events Research Center  
Initial  
US Agency for International Development  
The Disaster Resilience and Climate in the Americas Program (DRCAP)  
$1,059,615

Julio E Ibarra  
CIARA  
Continuation  
Assoc of Univs for Rsrch in Astronomy  
Large Synoptic Survey Telescope (LSST)  
$2,421,000

Kim Tieu  
Envir and Occupational Health  
Increase  
Environmental Health Sciences  
Toxicant-induced synaptic dysfunction and neurotoxicity in Parkinson disease  
$262,524

Laird H Kramer  
Physics  
Increase  
Howard Hughes Medical Institute  
Collaborative for Institutionalizing Scientific Learning at FIU  
$300,000

Leonel Lagos  
ARC Applied Research Center  
Continuation  
Office of Environmental Management  
Florida International University's Research Support to the DOE OEM  
$349,999

Mahadev Bhat  
Earth and Environment  
Initial  
National Institute of Food & Agriculture  
Innovative Curriculum for Agriculture Training and Career for Hispanics (iCATCH)  
$500,000

Marcus Stanley Cooke  
Envir and Occupational Health  
Initial  
Kytaro Inc  
Analysis of DNA damage in extra-corporally treated blood  
$2,465

For updates, corrections, suggestions, and/or general comments, please email Mercedes.rodriguez@fiu.edu
Maria Ilcheva  
Metropolitan Center  
Initial  
Miami-Dade County MPO  
5th Edition Citizens’ Guide to Transportation  
$44,800

Mario R De La Rosa  
School of Social Work  
Initial  
National Institutes of Health  
Alcohol Use Trajectories of Latino Immigrants during their First Decade in the US  
$326,250

Mark A Weiss  
Computer Info Sciences  
Initial  
National Science Foundation  
Collaborative Research: Florida-IT-Pathways to Success (Flit-Path)  
$1,944,118

Mark Padilla  
Global and Sociocultural Stu  
Increase  
National Institutes of Health  
Migration, Tourism and the HIV-drug use Syndemic in the Dominican Republic  
$24,867

Mark Patrick Traynor  
Sch of Hosp and Tourism Mgmt  
Initial  
PureWine Inc  
Investigating the Impact of Using Nano-Pore Filters in Cabernet Sauvignon  
$5,046

Michael S Ross  
Earth and Environment  
Supplemental  
South Florida Water Management District  
LILA: Phase V: Loxahatchee Impoundment Landscape Assessment  
$33,679

Michael S Ross  
Earth and Environment  
Initial  
National Park Service  
Ecosystem dynamics in the White Zone: history, drivers, and restoration implications  
$132,653

Mohammed A Hadi  
Civil and Environ Engineering  
Supplemental  
Florida Department of Transportation  
Utilization of Connected Vehicle Data to Support Traffic Management Decisions  
$7,615

Naphtali Rishe  
Computer Info Sciences  
Increase  
National Science Foundation  
I/UCRC Phase II: Center for Advanced Knowledge Enablement  
$90,000

For updates, corrections, suggestions, and/or general comments, please email Mercedes.rodriguez@fiu.edu
Naphtali Rishe  
Computer Info Sciences  
Increase  
National Science Foundation  
I/UCRC Phase II: Center for Advanced Knowledge Enablement $71,750

Norman D Munroe  
Mechanical and Mat Engineering  
Increase  
National Action Council for Minorities  
NACME Initiative at Florida International University $27,500

Patricia Barbetta  
Teaching and Learning  
Initial  
Florida Department of Education  
2016-2017 Exceptional Student Education (ESE Tuition Support Program) $325,000

Paulo Graziano  
Psychology  
Initial  
National Institute of Mental Health  
Biosignatures of Executive Function and Emotion Regulation $713,466

Pedro Pablo Hernandez  
Office of Rsch and Eco Develop  
Supplemental  
University of Central Florida  
FIU I-Corps Teams Funding $2,050

Pedro Pablo Hernandez  
Office of Rsch and Eco Develop  
Initial  
University of Central Florida  
FIU I-Corps Teams Funding $10,750

Ping Zhu  
Earth and Environment  
Initial  
National Oceanic and Atmospheric Admin  
Improving HWRF's Ability to Predict Rapid Change in Tropical Cyclone $169,999

Purnima Madhivanan  
Epidemiology  
Increase  
University of California Berkeley  
Global Health Fellows and Scholars Program $530

Purnima Madhivanan  
Epidemiology  
Pre-Award  
University of California Berkeley  
Global Health Fellows and Scholars Program $52,622
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<tr>
<th>Name</th>
<th>Department</th>
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<td>Raju Rangaswami</td>
<td>Computer Info Sciences</td>
<td>Continuation National Science Foundation CSR: Medium: Collaborative Research: NVM-enabled Host-side Caches</td>
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<td>Pre-Award North Carolina State University Advanced Self-Powered Systems of Integrated Sensor Technologies (ASSIST)</td>
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<td>Shekhar Bhansali</td>
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<td>Initial University of Missouri Kansas City A pilot study of salivary cortisol levels in subjects with/without signs</td>
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<td>Shekhar Bhansali</td>
<td>Elec and Computer Eng</td>
<td>Initial National Science Foundation Collaborative Research: NSF INCLUDES: An Integrated Approach to Retain</td>
<td>$58,253</td>
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**Shu-Ching Chen**  
Computer Info Sciences  
Supplemental  
Florida Office of Insurance Regulation  
Florida Public Hurricane Loss Model Project Model Enhancements  
$79,940

**Sonja S Montas-Hunter**  
Student Access and Success  
Continuation  
U.S. Department of Education  
McNair 2012-2017  
$237,926

**Sonja S Montas-Hunter**  
Student Access and Success  
Continuation  
U.S. Department of Education  
Florida International University TRIO Upward Bound  
$349,111

**Sonja S Montas-Hunter**  
Student Access and Success  
Continuation  
U.S. Department of Education  
Upward Bound Math-Science 12-17  
$257,462

**Tiffany Troxler**  
Southeast Env Research Ctr  
Initial  
Restore America's Estuaries  
Blue Carbon Baseline Assessment  
$15,000

**Tiffany Troxler**  
Southeast Env Research Ctr  
Initial  
National Park Service  
Ecological Assessment of Florida Bay and adjacent Mangrove Wetlands  
$148,000

**Todd Crowl**  
Southeast Env Research Ctr  
Initial  
National Park Service  
Stabilize and Protect South Florida Archeological Sites with Integrated  
$35,000

**Todd Crowl**  
Southeast Env Research Ctr  
Initial  
National Park Service  
Provide Specialized Support Services to the Office of Everglades Restoration Initiatives  
$636,847

**Yi Xiao**  
Chemistry  
Continuation  
National Institute of Justice  
Electrochemical and Colorimetric Aptamer-Based Sensors for Rapid  
$50,000
Yifu Zhu  
Physics  
Increase  
National Science Foundation  
Atomic Coherence and Interference in a Coupled Atom-Cavity System  
$39,925

**Funding Opportunities**
ORED has a new, improved and interactive webpage for funding opportunities. Please visit [http://research.fiu.edu/funding/#current](http://research.fiu.edu/funding/#current).

**Limited Submissions**
Current limited submission opportunities are available at [http://research.fiu.edu/funding/limited-submissions/](http://research.fiu.edu/funding/limited-submissions/).

**Contact ORED Senior Leadership**

<table>
<thead>
<tr>
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</tr>
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<td>Susan Webster</td>
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