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ARC awarded cybersecurity research contract from Department of Defense

FIU's Applied Research Center (ARC) was recently awarded a contract to support the U.S. Department of Defense (DoD) Test Resource Management Center (TRMC) in its mission to plan, assess and test cyberspace technology development, acquisition, fielding, and sustainment of defense systems for the Major Range and Test Facility Base (MRTFB).



Kick-off meeting

ARC hosted a post-award conference and kick-off meeting on June 30, 2016, at its facilities in Miami. The kick-off meeting included representatives from TRMC (Washington, DC), the Cyber Test Technology team (Eglin Air Force Base), PEO-STRI (Orlando, Florida), FIU faculty and FIU's Office of Research and Economic Development (ORED). The scope of work for the newly awarded 18-month contract includes development of a Security Agent testbed and a Kernel Q testbed as well as demonstration of a control center with integrated Security Agent and Kernel Q modules.

ARC developed the Cyberspace Technology Testing & Training Center (CT₃C) to perform cyberspace technology re-



ARC's CT₃C

search and testing as well as provide workforce development through a multi-disciplinary STEM (science, technology, engineering, and math) program at FIU. The CT₃C facility has state-of-the-art servers, security tools and network infrastructure to simulate, monitor and provide response to real life security threats.

In parallel, ARC has also developed a unique STEM workforce development program to train and mentor FIU minority students in the area of cyberspace technologies. ARC works closely with TRMC and FIU faculty to identify and recruit talented FIU STEM students (Cyber Fellows) from relevant engineering and computer science disciplines. These Cyber Fellows support the research being conducted at ARC and participate in summer internships at TRMC facilities across the US.



Cyber Fellows with Dr. Himanshu Upadhyay (left) and Dr. Leo Lagos (right)

Since 2013, eighteen FIU students have participated in 10-week cyberspace internships at Point Mugu Naval Base in Southern California; Lockheed Martin in Orlando, Florida; Eglin Airforce Base in Orlando, Florida; the National Cyber Range in Orlando, Florida; and Georgia Tech Research Institute in Atlanta, Georgia. To date, a total of five FIU Cyber Fellows have obtained employment with Lockheed Martin (Orlando and Maryland) as a direct result of participation in the summer internships and the FIU program.

Upcoming Events

- **July 6 through August 12, 10 am to 5 pm** (except Mondays), **Patricia & Phillip Frost Art Museum at FIU**, [*Curious Vault Collaborations 003: Neural Networks*](#). The exhibit and video showcase the collaboration of two FIU faculty – neuroscientist Angie Laird and multimedia artist Felice Grodin, and explores the pathways of the human brain via neuroimaging, which looks at mapping the brain dynamically while it is “working.”
- **September 30, 11 am to 12 pm**, TBA, lecture presented by Dr. [Dianqing Sun](#) from the University of Hawaii at Hilo
- **October 24, 3 to 4 pm**, WC-130, lecture presented by Dr. [Penny Beuning](#) from Northeastern University
- **October 28, 1:30 to 2:30 pm**, TBA, lecture presented by Dr. [Robert Ross](#) from Arizona State University

Awards Received—June 2016

FIU researchers were awarded \$15,814,960 in June 2016. Below is a listing of awards received.

Adjouadi, Malek

Elec and Computer Eng

Increase

National Science Foundation

MRI: Development of an Integrated Neuroimaging Instrument

\$120,137

Adjouadi, Malek

Elec and Computer Eng

Pre-Award

National Science Foundation

Graduate Research Fellowship Program

\$46,000

Almirall, Jose R

Chemistry

Increase

National Institute of Standards & Techno

Analysis of Nicotine in the Breath of Smokers as a Surrogate Model

\$59,144

Arnowitz, Joann

Jewish Museum of Florida-FIU

Initial

Florida Division of Cultural Affairs

General Program Support

\$80,272

Arnowitz, Joann

Jewish Museum of Florida-FIU

Initial

City of Miami Beach

Marketing Support Exhibits & Programs 15-16

\$53,546

Attong, Nicole

FIU Embrace

Initial

Dan Marino Foundation

The Dan Marino Foundation - Summer Living Program

\$2,333

Azizinamini, Atorod

Civil and Environ Engineering

Increase

U.S. Department of Transportation

Tier 1 University Transportation Center U.S. DOT Strategic Goal

\$469,600

Baraloto, Christopher Jon

Biology

Increase

Agricultural Research Service

Research Support Agreement with USDA-ARS SHRS

\$10,594

Bernier, Judith D

Center Labor Research Studies

Initial

Berger-Marks Foundation

2016 Women Summer School

\$10,000

Bhansali, Shekhar

Elec and Computer Eng

Supplemental

Kytaro Inc

Biosensors- Effect of design on efficacy of sensors

\$5,220

Bhansali, Shekhar

Elec and Computer Eng

Pre-Award

National Science Foundation

Graduate Research Fellowship Program

\$46,000

Bobadilla Molina, Jaime Leonardo

Computer Info Sciences

Initial

Army Research Office

Gathering and Processing Sensor Data with Unmanned Relay

Vehicles using Line-of-Sight Communication

\$49,963

Boeglin, Werner

Physics

Continuation

U.S. Department of Energy

A Fast Proton Diagnostic for NSTX

\$128,701

Boswell, Kevin

Biology

Initial

University of Miami

Ecology of Forage Fishes in the Arctic Nearshore

\$210,930

Boswell, Kevin

Biology

Pre-Award

University of Miami

Ecology of Forage Fishes in the Arctic Nearshore

\$10,000

Boukerrou, Lakhdar

Inst of Water and Environment

Initial

United States Embassy in Ouagadougou

USAID WA-WASH Environmental Security Workshop

\$50,000

Boyd, Jeffrey Allen

COM Human and Mol Genetics

Initial

Fox Chase Cancer Center

Identifying Determinants of PARP Inhibitor Sensitivity in Ovarian Cancer

\$17,836

Briceno, Henry

Southeast Env Research Ctr

Initial

National Park Service

\$100,000

Burgman, Robert Joseph

Earth and Environment

Decrease

National Oceanic and Atmospheric Admin

\$20,000

Burgman, Robert Joseph

Earth and Environment

Initial

National Oceanic and Atmospheric Admin

Developing a Real-Time Multi-Model Sub-Seasonal Predictive Capability

\$20,000

Casas, Alexander D

University Police

Initial

National Oceanic and Atmospheric Admin

Guard Services for the National Hurricane Center

\$226,727

Casas, Alexander D

University Police

Pre-Award

National Oceanic and Atmospheric Admin

Guard Services for the National Hurricane Center

\$70,000

Chen, Shu-Ching

Computer Info Sciences

Supplemental

Florida Office of Insurance Regulation

FPHL Model Operation and Maintenance, and Model Upgrades

\$15,093

Cheng, Michael

Chaplin Sch of Hosp and Tourism Mgmt

Initial

J&C Tropicals

Dragon Fruit research

\$14,300

Cramer, Elizabeth

Teaching and Learning

Initial

American Educational Research Assoc

Least Restrictive Environments and Achievement for Students with

\$5,000

De La Rosa, Mario R

School of Social Work

Initial

National Institutes of Health

Center for Substance Use and AIDS Research in Latinos in the United States

\$1,118,104

Diaz, Valerie J

Nursing Undergraduate

Continuation

Health Resources & Services Administration

VBSN Degree Program

\$350,000

Dick, Shannon

Psychology

Pre-Award

National Science Foundation

Graduate Research Fellowship Program

\$46,000

Donnelly, Maureen

College of Arts Science & Educ

Increase

Fairchild Tropical Botanic Garden

The Fairchild Challenge for Middle and High Schools at Fairchild

\$26,000

Donnelly, Maureen

College of Arts Science & Educ

Pre-Award

National Science Foundation

Graduate Research Fellowship Program

\$46,000

Evans, Jacqueline

Psychology

Initial

National Science Foundation

The Impact of Intoxication in the Interrogation Room

\$203,998

Feeley, Kenneth

Biology

Increase

National Science Foundation

CAREER: Measuring the thermal tolerances of individuals, populations, and species

\$103,268

Foerch, Daniela Fenu

Teaching and Learning

Initial

Early Learning Coalition of Dade/Monroe

2016-2017 Quality Rating Improvement System, QRIS

\$1,183,058

Foerch, Daniela Fenu

Teaching and Learning

Initial

Early Learning Coalition of Dade/Monroe

2016-2017 Developmental Assessment Services

\$137,586

Fourquarean, James

Biology

Initial

Naval Postgraduate School

Utilizing Robotic Technologies for Joint Human-Robot Missions

\$112,000

Fourquarean, James

Biology

Initial

Florida Department of Environmental Protection

Coastal marine research, education and conservation in Southwest Florida

\$534,496

Francisco Ortega, F Javier

Biology

Increase

Fairchild Tropical Botanic Garden

The Fairchild Challenge for Middle and High Schools at Fairchild Tropical

\$26,000

Francisco Ortega, F Javier

Biology

Increase

Montgomery Botanical Center

Phylogeography and Conservation Genetics of The Caribbean Zamia Clade:

\$28,072

Frazier, Stacy Lynn

Psychology

Initial

University of Illinois Chicago

Leaders@ Play for Chicago's Youth: Professional Development toward Youth Employment

\$42,409

Fu, Zhaohui

Library Operations

Increase

City of Coral Gables

Coral Gables Virtual History Phase II

\$51,000

Fu, Zhaohui

Library Operations

Initial

City of Coral Gables

Immigration Narrative

\$49,940

Fu, Zhaohui

Library Operations

Initial

City of Coral Gables

Tracking One Million Orchids and More

\$50,000

Fu, Zhaohui

Library Operations

Initial

Miami-Dade County MPO

Transportation Outreach Planner Phase IV

\$120,000

Gaiser, Evelyn

SEAS

Increase

Arizona State University

Urban resilience to climate change-driven extreme events

\$145,510

Gan, Cheng-Tin

Civil and Environ Engineering

Initial

Florida Department of Transportation

Development of 2017 Florida Transit Information System (FTIS)

\$101,837

Gan, Cheng-Tin

Civil and Environ Engineering

Initial

City of Doral

Transportation Engineering Technical and Research Support Services

\$100,000

Gan, Cheng-Tin

Civil and Environ Engineering

Initial

Florida Department of Transportation

Technical and Research Support for ITS and Traffic Engineering Projects (LOA #12)

\$70,003

Gan, Cheng-Tin

Civil and Environ Engineering

Initial

Florida Department of Transportation

Technical and Research Support for ITS and Traffic Engineering Projects (LOA #13)

\$117,293

Gan, Cheng-Tin

Civil and Environ Engineering

Initial

Florida Department of Transportation

Technical and Research Support for ITS and Traffic Engineering Projects (LOA #14)

\$62,704

Garcia, Delia C

School of Education

Supplemental

South Florida After-School All Stars Inc

South Florida After School All Stars Transfer Agreement 2014-2017

\$175,713

Gillis, Marin Maude Josette

COM Humanities Hlth and Soc

Initial

Arnold P. Gold Foundation The Living Will Project

\$5,000

Gordon, Yhovana D

Nursing Graduate

Initial

American Academy of Developmental Medici

Nurse Practitioner Education in Developmental Disabilities (NPEDD)

\$7,500

Gresham, C Emily

Office of Rsch and Eco Develop

Initial

Department of Economic Opportunity

West End StartUp FIU

\$1,250,000

Groom, Jeffrey A

Nursing Anesthesiology

Increase

Miami Beach Anesthesiology Associates

Miami Beach Anesthesiology Associates Faculty Support Agreement

\$311,751

Groom, Jeffrey A

Nursing Anesthesiology

Increase

Sheridan HealthCorp Inc.

Sheridan HealthCorp Faculty Support Agreement

\$130,098

Guilarte, Tomas R

Robert Stempel CPHSW Deans Off

Initial

Environmental Health Sciences

Presynaptic Mechanisms of Lead Neurotoxicity

\$452,817

Guvenc, Ismail

Elec and Computer Eng

Continuation

National Science Foundation

CAREER: Towards Broadband and UAV-Assisted Heterogeneous

\$77,560

Guvenc, Ismail

Elec and Computer Eng

Increase

National Science Foundation

NeTS: JUNO: Towards Energy-Efficient Hyper-Dense Wireless

\$16,000

Hamid, Shahid

COB Finance

Supplemental

Florida Office of Insurance Regulation

FPHL Model Operation and Maintenance, and Model Upgrades

\$39,785

Hannan, Jean Louise

Nursing Undergraduate

Initial

University of Ottawa

Infant Feeding among Black women living with HIV:

\$33,436

Hart, Katie

Psychology

Initial

Children's Trust

FIU Summer Academy: School Readiness Summer Program for Young Children

\$96,923

Hayden, Mary Helen

School of Social Work

Continuation

University of Central Florida

FIU Child Welfare Education Program

\$235,429

Ibarra, Julio E

CIARA

Increase

National Science Foundation

IRNC: RXP: AtlanticWave-SDX: a distributed intercontinental experimental SDX

\$452,376

Ilcheva, Maria

Metropolitan Center

Initial

Miami Downtown Development Authority

Miami Downtown Employee Characteristics and Attitudes Analysis

\$34,083

Izvanariu, Pamela Ann

SIPA

Initial

Evolution Institute

Evolution Institute/RISEP Partnership

\$6,000

Jaffe, Rudolf

Chemistry

Increase

South Florida Water Management District

Bioassays for Determining Bioavailable Dissolved Organic Nitrogen (BDON)

\$104,000

Jayachandran, Krishnaswamy

Earth and Environment

Initial

National Institute of Food & Agriculture

Development of a new agri-science major for multicultural scholars at FIU

\$200,000

Jayachandran, Krishnaswamy

Earth and Environment

Continuation

National Institute of Food & Agriculture

Broadening Agriculture Science Education (BASE) for Hispanic Students

\$250,000

Jiang, Haiyan

Earth and Environment

Increase

National Oceanic and Atmospheric Admin

Improvement and Implementation of the Probability-based Microwave

\$85,619

Jiang, Haiyan

Earth and Environment

Continuation

NASA Goddard Space Flight Center

Quantifying Asymmetries of Precipitation and Convection in Tropical Cyclones

\$30,000

Kanamori Nishimura, Mariano Juan

Crusada

Initial

National Institutes of Health

Embracing dyadic, egocentric, and community contextual influences to

\$161,828

Kanamori Nishimura, Mariano Juan

Crusada

Initial

National Institutes of Health

Embracing dyadic, egocentric, and community contextual influences to reduce

\$21,176

Lagos, Leonel

ARC Applied Research Center

Initial

U.S. Army

Cyber Attack Orchestration Test Bed for Automation and Threat Monitoring

\$800,000

Landorf, Hilary C

Acad Plan and Accountability

Initial

Comparative & International Education So

Comparative and International Education Society Executive Directorship

\$394,638

Lin, Wei-Chiang

Biomedical Engineering

Continuation

Nicklaus Children's Hospital

Multimodal Neuromonitoring and Neuroprotection in Critically Ill Children

\$27,663

Malloy, Lindsay

Psychology

Initial

National Science Foundation

Doctoral Dissertation Research: Does priming honesty elicit truthful

\$26,100

McMakin, Dana Lynn

Psychology

Initial

National Institute of Mental Health

Treatment Development Targeting Positive Affect Function in Adolescent Depression

\$56,099

Miguez Perez, Maria Jose

SISH

Continuation

National Institutes of Health

Role of BDNF on Risk Behavior Decision Making

\$410,875

Miguez Perez, Maria Jose

SISH

Increase

University of Florida

Pharmacotherapy for alcohol consumption in HIV Positive Women

\$30,000

Moon, Joongho

Chemistry

Increase

National Science Foundation

CAREER: Self-assembled Biodegradable Conjugated Polymers for RNA Interference

\$97,558

Mora, Francisco

Latin American and Carib Ctr

Continuation

U.S. Department of Education

Foreign Language and Area Studies (FLAS) Fellowships

\$276,000

Munroe, Norman D

Mechanical and Mat Engineering

Initial

Miami-Dade County Cultural Affairs

FY 2015-2016 Summer Arts and Science Camps (SAS-C)

\$14,850

Munroe, Norman D

Mechanical and Mat Engineering

Initial

U.S. Department of Transportation

National Summer Transportation Institute (NSTI)

\$21,626

Musser, Erica D

Psychology

Initial

National Institute of Mental Health

Heterogeneity in ADHD: Autonomic, Behavior, Emotion, and Treatment Response

\$70,328

Nepomechie, Marilys R

Archict and the Arts Deans Off

Initial

American Architectural Foundation

The Mayors' Institute on City Design (MICD)

\$50,000

Pala, Nezih

Elec and Computer Eng

Increase

University of Utah

3D Simulation of THz Plasmonic Structures

\$56,842

Parra, Carlos Manuel

COB Dept of Marketing

Initial

Catalyst Miami

My Mind & My Money

\$50,000

Pelham Jr, William E

Psychology

Initial

University at Buffalo SUNY

A meta-analysis of social and behavioral outcomes for ADHD in school settings

\$99,732

Pelham Jr, William E

Psychology

Pre-Award

University of Pittsburgh

Neural Correlates of symptoms and functioning in young adults with childhood ADHD

\$7,868

Pomeroy, Jordana

Frost Art Museum

Initial

Miami-Dade County Cultural Affairs

MD Tourist Development Council FY 2015-2016 Q2

\$13,500

Price, Rene

Earth and Environment

Initial

South Florida Water Management District

FY16 ENP Eco Hydrology Monitoring Eco-Hydrology Condition Measurement

\$89,368

Ramaswamy, Sharan

Biomedical Engineering

Initial

National Science Foundation

Mechanically Conditioned 3-Dimensional Cell Culture System

\$20,000

Ramella Roman, Jessica

Biomedical Engineering

Initial

FIU Foundation

An adaptive optics two photon microscope for retinal imaging

\$200,000

Reinhold, Joerg

Physics

Initial

U.S. Nuclear Regulatory Commission

FIU Nuclear Scholarships for Health Physics and Radiochemistry

\$195,318

Richards, Jennifer

Biology

Initial

South Florida Engineering and Consulting

Dinner Island Ranch Restoration Support Services

\$21,927

Riera Diaz, Jorge Javier

Biomedical Engineering

Initial

National Institutes of Health

Novel method for classifying BOLD response mechanisms in focal epilepsy

\$65,431

Rishe, Naphtali

Computer Info Sciences

Increase

National Science Foundation

I/UCRC Phase II: Center for Advanced Knowledge Enablement

\$16,000

Rishe, Naphtali

Computer Info Sciences

Increase

National Science Foundation

I/UCRC Phase II: Center for Advanced Knowledge Enablement

\$20,000

Rose, Suzanna M

Adv Women Equity and Diversity

Initial

Children's Trust

PAT4YOU

\$292,236

Scinto, Leonard

Earth and Environment

Increase

South Florida Water Management District

LILA: Phase V: Loxahatchee Impoundment Landscape Assessment

\$120,000

Stier, Oren B

Religious Studies

Increase

FIU Foundation

Developing an Online Holocaust Studies Certificate

\$4,000

Tremante, Andres

Mechanical and Mat Engineering

Initial

Florida Department of Transportation

UniversityCity Express and Community Transit System Vehicle Repair and Enhancement

\$171,450

Troxler, Tiffany

Southeast Env Research Ctr

Initial

Pennsylvania State University

Providing support for Modeling Evapotranspiration (ET) in Everglades

\$52,981

Tse Dinh, Yukching

Biomolecular Science Institute

Initial

Global Alliance TB for Drug Development

Mycobacterium tuberculosis topoisomerase I: Interaction with DNA and inhibitor

\$55,000

Unwalla, Hoshang Jehangir

COM Immunology

Initial

Flight Attendant Medical Research Inst

Gene Silencing in Chronic Bronchitis and COPD

\$88,500

Unwalla, Hoshang Jehangir

COM Immunology

Initial

Flight Attendant Medical Research Inst

Gene Silencing in Chronic Bronchitis and COPD

\$20,000

Villar, Maria Elena

Communication

Increase

Hampton University

Padres Activos (Active Fathers)\

\$125,000

Villar, Maria Elena

Communication

Initial

Hampton University

Padres Activos (Active Fathers)

\$125,000

Villodas, Feion

Psychology

Initial

Children's Trust

After-school support program for youth at-risk for behavior problems

\$225,767

Wang, Chunlei

Mechanical and Mat Engineering

Initial

National Science Foundation

3D C-NEMS based Aptasensors

\$282,945

Williams, Mark L

Health Policy and Mgmt

Continuation

Univ of Texas Health Science Ctr Houston

HIV risk and prevention venue affiliation among young

\$22,586

Zhang, Keqi

Earth and Environment

Increase

National Oceanic and Atmospheric Admin

Transition of the Coastal and Estuarine Storm Tide Model to Operational Model

\$136,833

Zhang, Yuying

Biology

Initial

University of Florida

Impacts of stock spatial structure and connectivity on management of

\$67,186

Zisis, Ioannis

Civil and Environ Engineering

Initial

University of Florida

Characterization and modeling of the damage caused by hurricane

\$49,985

Funding Opportunities

ORED has a new, improved and interactive webpage for funding opportunities. Please visit <http://research.fiu.edu/funding/#current>.

Limited Submissions

Current limited submission opportunities are available at <http://research.fiu.edu/funding/limited-submissions/>.

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