



From: 7/1/2011
 To: 12/31/2011
 Total Awards To Date: 55
 Total Award Dollars \$19,965,178

Research Awards

Advanced Tech For Large Stru Sys

Dan M. Frangopol

DOD-Navy-Arlington

Integrating SHM and Time-Variant System Performance of Naval Ship Structures for Near Real-Time Decision Making under Uncertainty: A Comprehensive Framework

Total Funding: \$718,949 **START_DATE:** 12/1/2011 **END_DATE:** 11/30/2015

Clay Joshua Naito

Precast/Prestressed Concrete Institute

Development of a Blast and Ballistic Resistant Precast Concrete Armored Wall System

Total Funding: \$20,000 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2012

Clay Joshua Naito

NSF-Directorate for Engineering

Rapid Proposal to Assess Impact of Tsunami Generated Debris in Japan

Total Funding: \$40,971 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2012

James M. Ricles

Purdue University

NEES Consortium Operations: FY 2012

Total Funding: \$903,602 **START_DATE:** 10/1/2011 **END_DATE:** 9/30/2012

Richard Sause

University of Arizona

NEESR: Inertial Force-Limiting Floor Anchorage Systems for Seismic-resistant Building Structures

Total Funding: \$370,268 **START_DATE:** 10/1/2011 **END_DATE:** 9/30/2014

Richard Sause

U.S. Department of Transportation

Core Fund: Advancing Steel and Concrete Bridge Technology to Improve Infrastructure Performance

Total Funding: \$2,759,927 **START_DATE:** 9/30/2011 **END_DATE:** 9/29/2016

Art Galleries

Ricardo Viera

PA-Council on the Arts

Lehigh University Art Galleries 2011-2012

Total Funding: \$6,366 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2012

Bioengineering Program

Yaling Liu

NSF-Directorate for Engineering

Collaborative Research: Characterization of Nanosensor Field-Assisted Detection of Biomarkers at Ultraflow Concentration

Total Funding: \$200,117 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2014

Biological Sciences

Robert V. Skibbens

U.S. Department of Health and Human Services

Mechanisms of Sister Chromatid Pairing

Total Funding: \$299,967 **START_DATE:** 9/1/2011 **END_DATE:** 8/30/2014

Chemical Engineering

James F. Gilchrist

NSF-Directorate for Engineering

SNM: Technologies for Nanoparticle Monolayer Self-Organization and Deposition

Total Funding: \$1,100,000 **START_DATE:** 8/15/2011 **END_DATE:** 7/31/2015

Israel E. Wachs

NSF-Directorate for Engineering

Supplement to 542137: Aqueous Oxidation of Methanol by V-Containing Biocatalysts

Total Funding: \$30,000 **START_DATE:** 8/25/2011 **END_DATE:** 8/31/2012

Israel E. Wachs

NSF-Directorate for Engineering

Collaborative Research: Fundamentals of Natural Gas Conversion to Fuels and Chemicals over Molybdenum Nanostructures

Total Funding: \$275,000 **START_DATE:** 11/1/2011 **END_DATE:** 10/31/2014

Chemistry

Robert A. Flowers

U.S. Department of Health and Human Services

Mechanism Based Design of Ce(IV) Mediated Reactions

Total Funding: \$333,667 **START_DATE:** 8/15/2011 **END_DATE:** 8/14/2014

Robert A. Flowers

NSF-Directorate for Mathematical and Physical Sciences

International Collaboration in Chemistry: Catalytic Atom-Economical Aromatic Substitutions via Radicals

Total Funding: \$632,179 **START_DATE:** 9/15/2011 **END_DATE:** 8/31/2014

Kerney Jebrell Glover

U.S. Department of Health and Human Services

Investigation of Caveolin Structure, Topology, and Oligomerization

Total Funding: \$1,871,954 **START_DATE:** 12/1/2011 **END_DATE:** 11/30/2016

Ned D. Heindel

University of Medicine & Dentistry of New Jersey

UMDNJ/Rutgers University CounterACT Research Center of Excellence

Total Funding: \$333,563 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2012

Civil & Environmental Engineering

Derick G. Brown

The Pennsylvania State University

NSF - TRAC: Cross-linking of Collagen Binders for Foundry Cores to Reduce VOC Emissions

Total Funding: \$6,100 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2012

Computer Science & Engineering

Daniel P. Lopresti

BBN Technologies Corp.

Multilingual Automated Document (MADCAT) Phase IV

Total Funding: \$88,575 **START_DATE:** 9/30/2011 **END_DATE:** 3/31/2012

Ctr for Advanced Mat Nanotechnology

Richard P. Vinci

NSF-Directorate for Engineering

Structure and Micro-Fracture Testing of Single Grain Boundaries in Ceramics

Total Funding: \$400,000 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2013

Earth & Environmental Sciences

Robert K. Booth

NSF-Directorate for Biological Sciences

Collaborative Research: Drought as a Trigger for Rapid State Shifts in Kettlehole Ecosystems

Total Funding: \$252,379 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2014

Frank J. Pazzaglia

NSF-Directorate for Geosciences

Collaborative Research: Geologic, Tectonic, and Geodynamic Processes of the Eastern North American (ENAM) Passive Margin Workshop

Total Funding: \$33,943 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2012

Frank J. Pazzaglia

NSF-Directorate for Geosciences

EarthScope RAPID: Geodetic and Seismological Response of the Mineral, VA Earthquake, 23 August, 2011

Total Funding: \$28,330 **START_DATE:** 11/1/2011 **END_DATE:** 12/31/2012

Frank J. Pazzaglia

NSF-Directorate for Geosciences

Collaborative Research: Geologic, Tectonic, and Geodynamic Processes of the Eastern North American (ENAM) Passive Margin Workshop

Total Funding: \$33,943 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2012

Zicheng Yu

NSF-Directorate of Polar Programs

Collaborative Research: RUI: Sensitivity of Circum-Arctic Peatland Carbon to Holocene Warm Climates and Climate Seasonality

Total Funding: \$504,172 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2014

Peter K. Zeitler

NSF-Directorate for Geosciences

Collaborative Research: Lhasa Block Top to Bottom-Lithospheric Evolution of Asia's Leading Edge

Total Funding: \$1,114,554 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2016

Economics

Shin-Yi Chou

Chiang Ching-kuo Foundation

Socioeconomic Causes and Consequences of Low Birth Weight in Taiwan

Total Funding: \$28,006 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2013

Chad Meyerhoefer

Lehigh Valley Health Network

*Information Flow and Clinical Outcomes in an Implementation of a Fully Functional Perinatal Continuum of Care***Total Funding:** \$439,911 **START_DATE:** 9/30/2011 **END_DATE:** 9/29/2014**Education & Human Services****Alec M. Bodzin**

PA-Department of Environmental Protection

*Climate Change: Environmental Literacy and Inquiry***Total Funding:** \$3,480 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2012**Alec M. Bodzin**

NSF-Directorate for Education And Human Resources

*Promoting Spatial Thinking with Web-based Geospatial Technologies***Total Funding:** \$438,161 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2013**Alec M. Bodzin**

NSF-Directorate for Education And Human Resources

*Promoting Spatial Thinking with Web-based Geospatial Technologies***Total Funding:** \$438,161 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2013**Elec & Comp Engr****James C.M. Hwang**

DOD-Air Force-Office of Scientific Research

*Intergovernmental Personnel Act (IPA) Agreement***Total Funding:** \$199,700 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2012**Sushil Kumar**

NSF-Directorate for Engineering

*High Power Quantum Cascade Laser for Terahertz Applications***Total Funding:** \$358,448 **START_DATE:** 9/1/2011 **END_DATE:** 8/31/2014**Parvathinathan Venkitasubramaniam**

NSF-Directorate for Computer and Info. Sci. & Engr.

*Nets: Small: Optimal Design of Anonymous Network Systems under Resource Constraints***Total Funding:** \$302,000 **START_DATE:** 8/15/2011 **END_DATE:** 7/31/2014**Enterprise Systems Center****Emory W. Zimmers**

PA Dept of Community & Economic Development

*iNET U: Agile Manufacturing FY 2009-2012***Total Funding:** \$270,000 **START_DATE:** 7/12/2011 **END_DATE:** 6/30/2012**Emory W. Zimmers**

PA Dept of Community & Economic Development

*St. Lukes: Agile Manufacturing FY 2009-2012***Total Funding:** \$270,000 **START_DATE:** 8/5/2011 **END_DATE:** 6/30/2012

Emory W. Zimmers

Ben Franklin Technology Partners

*Strong Pools and Spas, Inc.***Total Funding:** \$20,000 **START_DATE:** 7/1/2011 **END_DATE:** 2/29/2012**Emory W. Zimmers**

Ben Franklin Technology Partners

*Harvel Plastics***Total Funding:** \$40,000 **START_DATE:** 11/17/2011 **END_DATE:** 5/31/2012**Emory W. Zimmers**

Strong Industries Inc

*Strong Pools and Spas, Inc.***Total Funding:** \$50,000 **START_DATE:** 7/1/2011 **END_DATE:** 2/29/2012**Emory W. Zimmers**

Harvel Plastics

*Harvel Plastics, Inc.***Total Funding:** \$40,000 **START_DATE:** 11/17/2011 **END_DATE:** 5/31/2012**Emory W. Zimmers**

PA Dept of Community & Economic Development

*Nestle V: Agile Manufacturing FY 2009-2012***Total Funding:** \$270,000 **START_DATE:** 9/9/2011 **END_DATE:** 6/30/2012**Industrial & Systems Engr****Theodore K. Ralphs**

NSF-Directorate for Engineering

*Decomposition-based Optimization: A New Solver Paradigm***Total Funding:** \$250,000 **START_DATE:** 10/1/2011 **END_DATE:** 9/30/2014**Katya Scheinberg**

DOD-Air Force-Office of Scientific Research

*Derivative Free Optimization of Complex Systems with the Use of Statistical Machine Learning Models***Total Funding:** \$265,820 **START_DATE:** 8/15/2011 **END_DATE:** 8/14/2014**Institute for Metal Forming****Wojciech Z. Misiolek**

Medico Industries

*Machinability Comparative Studies for Selected Range of Modified HF-1 Steel with Different Heat Treatments***Total Funding:** \$18,750 **START_DATE:** 8/12/2011 **END_DATE:** 9/23/2011**Mathematics****Joseph E. Yukich**

NSF-Directorate for Mathematical and Physical Sciences

*Probabilistic Analysis of Large Complex Geometric Structures***Total Funding:** \$195,000 **START_DATE:** 8/15/2011 **END_DATE:** 7/31/2014

Mechanical Engr & Mechanics

Joachim L. Grenestedt

DOD-Navy-Arlington

Structural Influence of Dynamics of Bottom Loads

Total Funding: \$220,000 **START_DATE:** 8/1/2011 **END_DATE:** 7/31/2013

John B. Ochs

NSF-Directorate for Education And Human Resources

Collaborative Research: Assessing Individual Ethical Reasoning and Team Ethical Climate:

Understanding Their Relationship in Undergraduate Design Teams

Total Funding: \$27,001 **START_DATE:** 10/1/2011 **END_DATE:** 9/30/2014

Alparslan Oztekin

E-Harvest Systems

SBIR: CFD Simulations for Flows in e-Harvest Micro-Hydropower System

Total Funding: \$49,999 **START_DATE:** 10/10/2011 **END_DATE:** 4/10/2012

Alparslan Oztekin

DOE-Golden Field Office

Lehigh University Industrial Assessment Center

Total Funding: \$1,652,937 **START_DATE:** 9/30/2011 **END_DATE:** 5/31/2013

Physics

Volkmar R. Dierolf

NSF-Directorate for Engineering

EAGER - Exploiting Strain-Induced Coupling between Rare Earth Ions and the GaN Host for Improved Electroluminescence and Magnetic Devices

Total Funding: \$152,898 **START_DATE:** 8/15/2011 **END_DATE:** 1/31/2013

Mary Virginia McSwain

NSF-Directorate for Mathematical and Physical Sciences

The Formation and Interactions of Be Circumstellar Disks

Total Funding: \$535,400 **START_DATE:** 8/15/2011 **END_DATE:** 7/31/2014

Mary Virginia McSwain

National Aeronautics and Space Administration (NASA)

Multiwavelength Observations of Gamma-ray Binary Candidates

Total Funding: \$80,000 **START_DATE:** 8/14/2011 **END_DATE:** 8/13/2012

Vyacheslav Rotkin

DOD-Air Force-Office of Scientific Research

Near-field Thermal Coupling of a Nanoscale Interface and QED Kapitza Conductance of Nano-carbon Thermal Interconnect Materials

Total Funding: \$572,403 **START_DATE:** 7/15/2011 **END_DATE:** 7/14/2014

Psychology

Barbara C. Malt

NSF-Directorate for Social Behavioral and Economic Sciences

Collaborative Research: Cross-Language Lexical Interaction

Total Funding: \$212,253 **START_DATE:** 7/1/2011 **END_DATE:** 6/30/2014

Small Business Development Center

Sandra F. Holsonback

University of Pennsylvania

Small Business Administration Jobs FY 2011-12

Total Funding: \$140,699

START_DATE: 7/1/2011

END_DATE: 12/31/2011

Sandra F. Holsonback

University of Pennsylvania

DLA Procurement 2012

Total Funding: \$65,625

START_DATE: 8/1/2011

END_DATE: 7/31/2012