

RESEARCH ADMINISTRATION NEWSLETTER



The Office of Research Administration is pleased to share its inaugural Newsletter for 2020! We want it to be a vehicle for sharing with the University community the variety of sponsored research and training awards received by our excellent faculty from various academic units. The intent is to publish it bi-monthly, and we welcome your feedback and suggestions to help us make it a 'must read' for you. You may be pleasantly surprised to know that the pace of receiving awards has not subsided during the pandemic period.

This newsletter was generated under the guidance of Dr. Mildred Huff Ofofu, Assistant Vice President for Research Administration. May 2020.

NEW AWARDS

- ◆ **PI Name:** Maija Anderson
- ◆ **Department:** Nursing
- ◆ **Award Name:** Morgan State University Statewide Student Mentoring Initiative/Implementation of Mentoring
- ◆ **Project Description:** MSU Nursing, in collaboration with University of Maryland School of Nursing Workforce Center, received funding to support developing a statewide student mentoring initiative designed to increase the number of nurses at the bedside by improving student outcomes. Funding will support 1) developing a statewide mentoring workshop for all nursing faculty from all nursing programs in the State; 2) supporting nursing programs at all institutions wanting to develop formal mentoring programs; and 3) evaluating the effectiveness of the mentoring initiative.
- ◆ **Funding Agency:** State of Maryland Department of Health
- ◆ **Award Type:** Grant
- ◆ **Amount:** \$146,722 .00
- ◆ **Period of Performance:** 07/01/2020-06/30/2021

- ◇ **PI Name:** Annette Woodroffe
- ◇ **Department:** School of Social Work
- ◇ **Award Name:** Next Generation Scholars Program
- ◇ **Project Description:** The Morgan State University College Discovery/Next Generation Program provides low-income Maryland high school students grades 7 -12 opportunities to boost their success for college and career readiness. Along with mentoring and one-on-one counseling, scholars are guided in areas such as developing and fulfilling the requirements of a high school graduation plan, life skills, summer work experience in their area of career interest, and academic assistance.
- ◇ **Funding Agency:** Maryland State Department of Education
- ◇ **Award Type:** Grant
- ◇ **Amount:** \$186,000.00
- ◇ **Period of Performance:** 07/01/2019-08/31/2020

- ◆ **PI Name:** Kim McCalla
- ◆ **Department:** Finance and Management/Construction and Management
- ◆ **Award Name:** The University Memorial Chapel Window Preservation
- ◆ **Project Description:** The project is designed to repair and preserve University Memorial Chapel Window by implementing the following: conducting hazmat testing and remediation for windows and doors, window restoration; repair window sills; clean, repair, and repoint exterior masonry walls; repair wood doors and obtain assistance from architectural consultants.
- ◆ **Funding Agency:** National Park Services
- ◆ **Award Type:** Grant/restoration
- ◆ **Amount:** \$500,000.00
- ◆ **Period of Performance:** 09/01/2020-08/31/2020

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- ◆ **PI Name:** LaPorchia Davis
 - ◆ **Department:** Family and Consumer Science
 - ◆ **Award Name:** Maryland Open Source Textbooks
 - ◆ **Project Description:** Morgan State University received \$1,000 for Dr. LaPorchia Davis to participate in summer workshop, presented by Maryland Open Source Textbook (MOST). MOST is a collaborative online space designed to support the sharing and creation of Open Educational Resources (OER), which provides the opportunity to access openly licensed content within her field and collaborate with faculty within MUS and across Maryland. After attending a summer workshop and writing a report which contains shared outcomes and lesson learned, surveys will be submitted to obtain data from MSU.
 - ◆ **Funding Agency:** University Systems of Maryland
 - ◆ **Award Type:** Mini Grant
 - ◆ **Amount:** \$1,000.00
 - ◆ **Period of Performance:** 06/01/2020-05/31/2021

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- ◇ **PI Name:** David Jacobs
 - ◇ **Department:** School of Business
 - ◇ **Award Name:** Maryland Open Source Textbooks
 - ◇ **Project Description:** Morgan State University received \$1,000 for Dr. David Jacobs to participate in summer workshop, presented by Maryland Open Source Textbook (MOST). MOST is a collaborative online space designed to support the sharing and creation of Open Educational Resources (OER), which provides the opportunity to access openly licensed content within his field and collaborate with faculty within MUS and across Maryland. This allows for sharing and creation of OER. After attending a summer workshop and writing a report which contains shared outcomes and lesson learned, surveys will be submitted to obtain data from faculty and students at MSU.
 - ◇ **Funding Agency:** University Systems of Maryland
 - ◇ **Award Type:** Mini Grant
 - ◇ **Amount:** \$1,000.00
 - ◇ **Period of Performance:** 06/01/2020-05/31/2021

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- ◇ **PI Name:** Maija Anderson
 - ◇ **Department:** Nursing
 - ◇ **Award Name:** Preparing English, Math and Science Scholars II (PEMSS II)
 - ◇ **Project Description:** Preparing English, Math and Science Scholars II, (PEMSSII) is a collaborative, remediation project, which will target learning deficits and strengths for the 5th Year Seniors at Edmondson West High School in Baltimore City. Funding will support Reading, English Art, Math and Science remedial services, academic support and professional development activities for thirty,(30) 5th year seniors enrolled at Edmondson-West-Side High School (EWSH). It will also support a two-week virtual summer enrichment program, educational workshops for parents/students in completing the Free Application for Federal Student Aid (FAFSA) form, college readiness activities and in selecting the right school for the furtherance of their child's education.
 - ◇ **Funding Agency:** Maryland Higher Education Commission
 - ◇ **Award Type:** Grant
 - ◇ **Amount:** \$149,948.00
 - ◇ **Period of Performance:** 06/01/2020-06/30/2021

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- ◇ **PI Name:** Christian Anderson
 - ◇ **Department:** School of Education & Urban Studies
 - ◇ **Award Name:** Making Computational Thinking Accessible to Diverse Student Populations (MCAD)
 - ◇ **Project Description:** The grant program is designed to develop a collaborative framework outlining the essential topics to be taught in a Maryland preservice computer science education program, and then to develop courses and pathways to implement that framework.
 - ◇ **Funding Agency:** University System of Maryland
 - ◇ **Award Type:** Grant
 - ◇ **Amount:** \$15,000.00
 - ◇ **Period of Performance:** 04/23/2020-12/31/2020
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- ◆ **PI Name:** Steve Efe
 - ◆ **Department:** School of Engineering/Electrical & Computer Engineering
 - ◆ **Award Name:** Preparing the Next Generation of Undergraduate and Graduate Engineers in Autonomous Robotic System for Damage Detection
 - ◆ **Project Description:** Students will be participating in sustainable mobility initiative of automation technologies in electric vehicle operations and meeting transportation energy demands. It will also engage students in education and research activities in Transportation engineering fields.
 - ◆ **Funding Agency:** U. S. Department of Transportation via The Penn State University
 - ◆ **Award Type:** Grant/Subaward
 - ◆ **Amount:** : \$66,667.00
 - ◆ **Period of Performance:** 03/30/2020-09/30/2021
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- ◇ **PI Name:** Maija Anderson
 - ◇ **Department:** Nursing
 - ◇ **Award Name:** Morgan State University Resource Grant for Faculty Development
 - ◇ **Project Description:** Supporting nursing faculty development in order to sustain successful student outcomes.
 - ◇ **Funding Agency:** State of Maryland Department of Health
 - ◇ **Award Type:** Grant
 - ◇ **Amount:** \$7,000.00
 - ◇ **Period of Performance:** 07/01/2020-06/30/2021
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- ◆ **PI Name:** Kadir Aslan/ Mehdi Shokouhian (Co-PI)
 - ◆ **Department:** School of Engineering
 - ◆ **Award Name:** Experimental and Numerical Investigations on Recycled Fiber Reinforced Concrete for Green Bus Pads
 - ◆ **Project Description:** The sustainability of pavement materials is a major issue that started to be strongly felt in view of a global perspective of environmental protection. Wasted materials often may find a new lifecycle if well re-engineered, even in structural applications. In this field short steel fibers obtained from used tires at the end of their life may find promising applications within a concrete matrix. In this study mechanical properties of Recycled Steel Fiber-Reinforced Concrete (RSFRC) in terms of workability, compressive and tensile strength, toughness and shear behavior will be analyzed and constitutive model will be implemented to develop a computational model to enhance the design of concrete bus pads.
 - ◆ **Funding Agency:** U.S. Department of Transportation via Pennsylvania State University
 - ◆ **Award Type:** Subaward
 - ◆ **Amount:** \$300,000.00
 - ◆ **Period of Performance:** 06/05/2018-09/30/2023
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- ◆ **PI Name:** Alexander Samokhvalov
 - ◆ **Department:** School of Computer, Mathematical and Natural Sciences/Chemistry
 - ◆ **Award Name:** Encapsulation and Delayed Release of Gemcitabine by Aluminum Metal-Organic Frameworks
 - ◆ **Project Description:** The overall goal of this project is to study selected Al-MOFs as new matrix for encapsulation and prolonged release of gemcitabine. Our focus of the research is to study fundamental chemical properties of complexes of gemcitabine with Al-MOFs, kinetics of delayed release, and cytotoxicity.
 - ◆ **Funding Agency:** National Institutes of Health
 - ◆ **Award Type:** Grant
 - ◆ **Amount:** \$ 326,128 .00
 - ◆ **Period of Performance:** 05/01/2020-04/30/2023
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MULTI-YEAR AWARDS

- ◇ **PI Name:** Mircea Grecu ◇ **Department:** Research and Economic Development
 - ◇ **Award Name:** Improved detection and quantification of precipitation by the TRMM/GPM Combined Algorithm
 - ◇ **Project Description:** The ground clutter is a function of the radar incidence angle – it is a minimum at nadir and drastically increases with the viewing angle. From an instantaneous and climatological perspective, it is necessary to accurately estimate precipitation at all radar viewing angles. This research project proposes a methodology to mitigate ground clutter issues using a comprehensive database of GPM near-nadir radar observations, minimally contaminated by ground clutter, matched with coincident GMI observations.
 - ◇ **Funding Agency:** National Aeronautics and Space Administration ◇ **Award Type:** Grant/Cooperative Agreement
 - ◇ **Amount:** \$106,567.00, Second year funds received 4.2.2020 ◇ **Period of Performance:** 04/04/2020-03/17/2021
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- ◆ **PI Name:** Liao Liang ◆ **Department:** Research and Economic Development
 - ◆ **Award Name:** Studies on Single-and-Dual Wavelength DPR Retrievals: Algorithm Development, Evaluation and Validation
 - ◆ **Project Description:** The research project is designed to derive rain rate and raindrop size distribution (DSD) by using several dual- wavelength radar retrieval techniques.
 - ◆ **Funding Agency:** National Aeronautics and Space Administration ◆ **Award Type:** Grant/Cooperative Agreement
 - ◆ **Amount:** \$122,948.00, Second year funds received 4.1.2020 ◆ **Period of Performance:** 04/04/2020-03/17/2021
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- ◇ **PI Name:** Min-Jeong Kim ◇ **Department:** Research and Economic Development
 - ◇ **Award Name:** Satellite Data Assimilated 4D Global Precipitation Products from the GEOS System in Support of the GPM Mission
 - ◇ **Project Description:** The proposed research will focus on the development of assimilation methodologies that combine information from observations and models to improve numerical weather prediction and to produce improved analyses of precipitation and downscaling of satellite precipitation estimates.
 - ◇ **Funding Agency:** National Aeronautics and Space Administration ◇ **Award Type:** Grant/Cooperative Agreement
 - ◇ **Amount:** \$95, 637.00, Second year funds received 4.2.2020 ◇ **Period of Performance:** 04/04/2020-03/17/2021
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MULTI-YEAR AWARDS

- ◆ **PI Name:** Dong Min Lee
 - ◆ **Department:** Research and Economic Development
 - ◆ **Award Name:** A New Framework for Evaluating Clouds and Their Radiative Effects in Atmospheric Global Climate Models using Spaces-Based Cloud and Radiative Flux Observations
 - ◆ **Project Description:** The proposed research will focus on the development of assimilation methodologies that combine information from observations and models to improve numerical weather prediction and to produce improved analyses of precipitation and downscaling of satellite precipitate estimation.
 - ◆ **Funding Agency:** National Aeronautics and Space
 - ◆ **Award Type:** Grant/Cooperative Agreement
 - ◆ **Amount:** \$40,645.00 - 5/21/2020
 - ◆ **Period of Performance:** 05/31/2018-05/30/2021
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- ◆ **PI Name:** Celeste Chavis/Mansoureh Jeihani
- ◆ **Department:** School of Engineering/Department of Transportation
- ◆ **Co-PI Names:** Young-Jae Lee,/Hyeonic-Shic Shin
- ◆ **Award Name:** A New Framework for Evaluating Clouds and Their Radiative Effects in Atmospheric Global Climate Models using Spaces-Based Cloud and Radiative Flux Observations
- ◆ **Project Description:** The Morgan State University (MSU) Team will support all tasks outlined in the FlexTRACC Proposal being submitted by the University of Massachusetts Amherst led by Eric Gonzales. All members of the team will work on the literature review, analysis, and reporting for the tasks in which they support. The following outlines the proposal tasks to be supported by MSU.
 - ◆ Task 1: Identifying Patterns of Mobility and Demand will be supported by Chavis
 - ◆ Task 2: Understanding Traveler Preferences and Decision-Making will be support by Jeihani
 - ◆ Task 3: Designing Transit Systems for Flexibility, Efficiency, and Sustainability will be supported by Lee
 - ◆ Task 4: Coordination with Alternative Service Providers will be supported by Shin
 - ◆ Task 5: Equity in Future Transit Access and Mobility will be led by Chavis
 - ◆ Additionally, the MSU team will engage in education and technology transfer activities of the FlexTRACC Center.
- ◆ **Funding Agency:** United States Department of Transportation
- ◆ **Award Type:** Grant: Research
- ◆ **Amount:** \$1,427,900.00
- ◆ **Period of Performance:** 10/01/2020-06/30/2022

CARES ACT AWARDS

- ◆ **PI Name:** Deborah Flavin
 - ◆ **Department:** Finance and Management
 - ◆ **Award Name:** COVID-19 Institutional Component
 - ◆ **Project Description:** Section 18004 (a) (1) allocated \$4,631,796 for emergency financial grants to assist eligible students who have been impacted by an on-campus COVID-19 related financial disruption.
 - ◆ **Funding Agency:** Department of Education
 - ◆ **Award Type:** Grant
 - ◆ **Amount:** \$4,631,796.00
 - ◆ **Period of Performance:** 05/06/2020 - 05/05/2021
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- ◇ **PI Name:** Sidney Evans
 - ◇ **Department:** Finance and Management
 - ◇ **Award Name:** MSU Application for Higher Education Relief Fund HBCU due to COVID-19
 - ◇ **Project Description:** To provide emergency funding for expenses related to disruption of campus operations due to COVID-19 crisis.
 - ◇ **Funding Agency:** Department of Education
 - ◇ **Award Type:** Grant
 - ◇ **Amount:** \$19,040,779.00
 - ◇ **Period of Performance:** 05/01/2020 - 04/30/2021
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- ◆ **PI Name:** Ernest Brevard
 - ◆ **Department:** Enrollment Management
 - ◆ **Award Name:** Coronavirus Aid
 - ◆ **Project Description:** To provide emergency grant-aid dollars to institutions for costs related to Coronavirus.
 - ◆ **Funding Agency:** Department of Education
 - ◆ **Award Type:** Grant
 - ◆ **Amount:** \$4,631,796.00
 - ◆ **Period of Performance:** 05/01/2020 - 04/30/2021
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