

December 19, 2019

The Office of Research and Economic Development is pleased to announce awards received by UNC Charlotte Researchers in the month of November, 2019.

Total amount awarded for the month of November was \$4,524,302

Fiscal Year To Date Total: \$28,249,409

Award Title	Amount	Investigators	PI Dept.	Sponsors
11th Annual NASA Robotic Mining Competition - Team Competition Grant	\$5,000	Principal Investigator (PI): Browne, Aidan Co-PI: Smith, Michael	Engineering Technology and Construction Management	Sponsor: North Carolina Space Grant Consortium (NC Space Grant) Prime Sponsor: National Aeronautics and Space Administration (NASA)
2019 Junior Science & Humanities Symposia (JSHS)	\$21,000	Principal Investigator (PI): Wickliff, Alisa	Center for STEM Education	Sponsor: National Science Teachers Association (NSTA) Prime Sponsor: Battelle Memorial Institute
49er Rocketry SLI Competition Travel	\$6,000	Principal Investigator (PI): Dahlberg, Jerry	Mechanical Engineering and Engineering Science	Sponsor: North Carolina Space Grant Consortium (NC Space Grant) Prime Sponsor: National Aeronautics and Space Administration (NASA)
Algorithm Development for Automated Flaw Detection in Remote Visual Examination of Reactor Internals	\$127,514	Principal Investigator (PI): Shin, Min	Computer Science	Sponsor: Electric Power Research Institute (EPRI)
CHS: SMALL: Promoting Unexpected Information Discovery: An Interactive Framework for Computational Serendipity	\$197,416	Principal Investigator (PI): Niu, Xi Co-PI: Maher, Mary	Software and Information Systems	Sponsor: National Science Foundation (NSF)
CSR: Small: Collaborative Research: Tuning Extreme-Scale Storage System Through Deep Learning	\$30,189	Principal Investigator (PI): Dai, Dong	Computer Science	Sponsor: Iowa State University (ISU) Prime Sponsor: National Science Foundation (NSF)

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CyPhy: Cyber-Secure Physical Layer Security in Millimeter Wave Communications	\$64,967	Principal Investigator (PI): Wang, Pu	Computer Science	Sponsor: Battelle Energy Alliance, LLC Prime Sponsor: Department of Energy (DOE)
EAGER: SaTC: Early-Stage Interdisciplinary Collaboration: Privacy-Preserving Mobile Data Collection for Social and Behavioral Research	\$315,997	Principal Investigator (PI): Fan, Liyue	Computer Science	Sponsor: National Science Foundation (NSF)
Evaluation and Optimization of Engineered Media Amendments for Contaminant Removal in Stormwater Runoff Filtration Systems	\$60,000	Principal Investigator (PI): Sun, Mei Co-PIs: Vinson, David; Munir, Mariya	Civil and Environmental Engineering	Sponsor: North Carolina Department of Transportation (NCDOT) Prime Sponsor: US Department of Transportation (DOT)
Evaluation of J-Rox as SCM for Concrete Applications	\$41,534	Principal Investigator (PI): Cavalline, Tara Co-PI: Tempest, Brett	Engineering Technology and Construction Management	Sponsor: Global Sustainable Solutions, LLC Prime Sponsor: Novaphos
Evaluation of the Implementation of the K-3 Formative Assessments	\$186,218	Principal Investigator (PI): Lambert, Richard	Educational Leadership	Sponsor: North Carolina Department of Public Instruction (NCDPI)
Extended Development, Verification, and Validation of a Blast Dynamics Simulator for Post-Blast Forensic Investigations	\$45,256	Principal Investigator (PI): Whelan, Matthew	Civil and Environmental Engineering	Sponsor: DOJ National Institute of Justice (NIJ)
Generation of 3D Point Clouds from Multiple Line-Data Sensors	\$19,386	Principal Investigator (PI): Morse, Edward	Mechanical Engineering and Engineering Science	Sponsor: +Vantage Corporation
Green and Sustainable Water Purification Membranes	\$24,827	Principal Investigator (PI): Poler, Jordan	Chemistry	Sponsor: EPA Office of Water

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Identifying Microbial, Epithelial and Immune Cell Interactions that Mediate Mucosal Homeostasis and Determine IBD Phenotypes	\$6,399	Principal Investigator (PI): Fodor, Anthony	Bioinformatics Research Center	Sponsor: National Institutes of Health (NIH) Prime Sponsor: University of North Carolina at Chapel Hill (UNC-CH)
Mechanism of APE1 in DNA Damage Response	\$324,714	Principal Investigator (PI): Yan, Shan	Biological Sciences	Sponsor: National Institutes of Health (NIH)
Milk Delivery: A Project to Publish the Newspaper Columns of Gay Liberation Activist, Harvey Milk	\$6,000	Principal Investigator (PI): Black, Jason	Communication Studies	Sponsor: National Endowment for the Humanities (NEH)
Niner For a Day	\$1,000	Principal Investigator (PI): Lewis, Chance Co-PI: Richardson, Sonyia	Middle, Secondary and K-12 Education	Sponsor: Walmart Foundation
Phase II CFM Industry Membership Funds	\$235,000	Principal Investigator (PI): Aggarwal, Ishwar	Physics and Optical Science	Sponsor: All Other Business and Industry
Promoting Teacher Use of the Support Intensity Scale-Children's Version to Engage in Supports Planning to Enhance Access to the General Education Curriculum for Children with Intellectual Disability	\$89,601	Principal Investigator (PI): Walker, Virginia	Special Education and Child Development	Sponsor: University of Kansas Prime Sponsor: US Department of Education (DOED)
QM Power 3-phase Q-Sync	\$299,660	Principal Investigator (PI): Gafford, James Co-PI: Manjrekar, Madhav	Energy Production and Infrastructure Center	Sponsor: QM Power, Inc.
SHF:Small:Collaborative Research: Application-Aware Energy Modeling and Power Management for Parallel and High Performance Computing	\$23,273	Principal Investigator (PI): Yan, Yonghong	Computer Science	Sponsor: National Science Foundation (NSF)

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SHIP at Hampton Creste Program Evaluation	\$12,500	Principal Investigator (PI): Hatcher, Schnavia Co-PI: Crocker, Tianca	School of Social Work	Sponsor: City of Charlotte Housing Authority
SoutheastCon 2020 Hardware Competition	\$5,000	Principal Investigator (PI): Conrad, James	Electrical and Computer Engineering	Sponsor: North Carolina Space Grant Consortium (NC Space Grant) Prime Sponsor: National Aeronautics and Space Administration (NASA)
State Systemic Improve Plan (SIP) Evaluation	\$78,229	Principal Investigator (PI): Anderson, Kelly	Special Education and Child Development	Sponsor: North Carolina Department of Public Instruction (NCDPI) Prime Sponsor: US Department of Education (DOED)
STTR: Research and Development for the Fabrication of Fast Axis Collimators in Germanium	\$67,004	Principal Investigator (PI): Davies, Matthew	Mechanical Engineering and Engineering Science	Sponsor: Rochester Precision Optics Prime Sponsor: DOD Department of Air Force (DAF) Air Force Research Laboratory (AFRL)
STTR: STTR Phase II: IR Scatter of NL Surfaces.	\$209,235	Principal Investigator (PI): Poutous, Menelaos	Physics and Optical Science	Sponsor: Nanohmics, Inc. Prime Sponsor: DOD Department of Air Force (DAF) Air Force Research Laboratory (AFRL)
Technical Assistance to the North Carolina Department of Public Instruction in the Implementation of the Transportation Information Management System (TIMS) 2019-20	\$222,607	Principal Investigator (PI): York, Phillip	Urban Institute	Sponsor: North Carolina Department of Public Instruction (NCDPI)

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The Application of IN740H Alloy for Enhancement of Operational Flexibility of Power Plants	\$199,996	Principal Investigator (PI): Tabarraei, Alireza	Mechanical Engineering and Engineering Science	Sponsor: North Carolina Agricultural and Technical State University (NCAT) Prime Sponsor: Department of Energy (DOE) Office of Fossil Energy
The Center for Advanced Power Engineering Research (CAPER)	\$150,000	Principal Investigator (PI): Mazzola, Michael	Energy Production and Infrastructure Center	Sponsor: Siemens USA
Tier 1 (Improving Mobility) Advanced Multimodal Mobility Solutions and Education	\$1,420,000	Principal Investigator (PI): Fan, Wei Co-PIs: Weggel, David; Kane, Martin;	Civil and Environmental Engineering	Sponsor: US Department of Transportation (DOT)
Translating Evidence to Support Transitions: Improving Outcomes of Youth in Transition with Psychiatric Disabilities by Use and Adoption of Best Practice Transition Planning	\$28,000	Principal Investigator (PI): Fowler, Catherine	Special Education and Child Development	Sponsor: University of Massachusetts Medical School Prime Sponsor: Department of Health and Human Services (DHHS)
Wireless Power Transfer for Switcher Trains	\$780	Principal Investigator (PI): Zhao, Tiefu Co-PIs: Braxtan, Nicole; Chen, Shen-En	Electrical and Computer Engineering	Sponsor: North Carolina Department of Transportation (NCDOT) Prime Sponsor: US Department of Transportation (DOT)