

August 26, 2019

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

Total amount awarded for the month of July was \$6,839,045

Fiscal Year To Date Total: \$6,839,045

Award Title	Amount	Investigators	PI Dept.	Sponsors
Benchmark BikePed NC: Benchmarking Non-Motorized Policies and Project Delivery	\$194,718	Principal Investigator (PI): Leland, Suzanne Co-PI: Pulugurtha, Srinivas	Political Science and Public Administration	Sponsor: North Carolina Department of Transportation (NCDOT) Prime Sponsor: US Department of Transportation (DOT)
Bicycle Volume: Counting Machine Validation & Correction, Estimating & Forecasting, and Analysis of Injury Risk	\$236,952	Principal Investigator (PI): Fan, Wei	Civil and Environmental Engineering	Sponsor: North Carolina Department of Transportation (NCDOT) Prime Sponsor: Federal Highway Administration (FHWA)
Building a New Math Pathway for the Social Sciences	\$100,000	Principal Investigator (PI): Bumgardner, Elizabeth Co-PI: Kazemi, Mohammad	Mathematics and Statistics	Sponsor: University of North Carolina System Office (UNC SysOff) Prime Sponsor: John M Belk Endowment
Building Evaluation Capacity Among Nonprofits To Increase Economic and Social Mobility	\$20,000	Principal Investigator (PI): Cook, James Co-PI: Kilmer, Ryan	Psychological Science	Sponsor: United Way of Central Carolinas
Characteristics and Evolution of Observed and Simulated Supercell Thunderstorms in the Central and Southern Appalachians	\$281,948	Principal Investigator (PI): Davenport, Casey Co-PI: Eastin, Matthew	Geography and Earth Sciences	Sponsor: DOC National Oceanic and Atmospheric Administration (NOAA)
Charlotte Mecklenburg Senior Center - Graduate Student Support	\$45,292	Principal Investigator (PI): Moore-Harrison, Trudy	Kinesiology	Sponsor: Mecklenburg County Parks and Recreation Department

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Charlotte Regional Integrated Behavioral Health Scholars (CRIBHS)	\$449,252	Principal Investigator (PI): Kulkarni, Shanti	School of Social Work	Sponsor: DHHS Health Resources and Services Administration (HRSA)
CNS Core: Small: UbiVision: Ubiquitous Machine Vision with Adaptive Wireless Networking and Edge Computing	\$403,794	Principal Investigator (PI): Han, Tao Co-PI: Chen, Chen	Electrical and Computer Engineering	Sponsor: National Science Foundation (NSF)
Continued Maintenance and Development of Software: Integrated Genome Browser and the Genoviz SDK, Visualization Software for Next-Generation Genomics	\$372,062	Principal Investigator (PI): Loraine, Ann	Bioinformatics and Genomics	Sponsor: NIH National Center for Research Resources (NCRR)
Continuing Toward Implementation of Performance Engineered Concrete Mixtures for Durable and Sustainable Concrete	\$295,464	Principal Investigator (PI): Cavalline, Tara Co-PI: Tempest, Brett	Engineering Technology and Construction Management	Sponsor: North Carolina Department of Transportation (NCDOT)
Correlative Study of Defects in Semiconductors	\$39,957	Principal Investigator (PI): Zhang, Yong	Electrical and Computer Engineering	Sponsor: DOD DA Army Research Office (ARO)
Customer Insights Research	\$150,000	Principal Investigator (PI): Hong, Tao	Systems Engineering and Engineering Management	Sponsor: Duke Energy Corporation
Developing Knowledge Models to Enable Rapid Learning in Radiation Therapy	\$221,378	Principal Investigator (PI): Ge, Yaorong	Software and Information Systems	Sponsor: Duke University Health System Prime Sponsor: National Institutes of Health (NIH)
Development of an Energy Storage Optimization and Control Framework using Advanced Energy Forecasting	\$45,745	Principal Investigator (PI): Cali, Umit Co-PI: Kamalasadan, Sukumar	Engineering Technology and Construction Management	Sponsor: Electric Power Research Institute (EPRI)

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Development of Pavement Performance Models using New Breakpoints and Pretreatment Conditions	\$323,960	Principal Investigator (PI): Chen, Dong Co-PI: Nicholas, Thomas	Engineering Technology and Construction Management	Sponsor: North Carolina Department of Transportation (NCDOT) Prime Sponsor: US Department of Transportation (DOT)
DoS English Language Specialist Award to Tunisia and Morocco July 2019	\$1,501	Principal Investigator (PI): Salas, Spencer	Middle, Secondary and K-12 Education	Sponsor: Georgetown University Prime Sponsor: Department of State (DOS)
Economic Impacts of Transit Investments, Social Challenges, and Strategies for Sustaining High Ridership	\$127,856	Principal Investigator (PI): Thill, Jean-Claude	Geography and Earth Sciences	Sponsor: North Carolina State University (NCSU) Prime Sponsor: North Carolina Department of Transportation (NCDOT)
Environment Assisted Cracking of Graphene	\$3,103	Principal Investigator (PI): Tabarraei, Alireza	Mechanical Engineering and Engineering Science	Sponsor: National Science Foundation (NSF)
Fulbright U.S. Program Pre-Departure Orientation - East Asia and the Pacific	\$254,955	Principal Investigator (PI): Kinter, Lauren Co-PI: Ladenheim, Rachel	Intercultural Outreach	Sponsor: Institute of International Education, Inc. (IIE) Prime Sponsor: US Department of State (DOS)
Hexacoordinate Silicon Complexes for Electronic Devices	\$56,698	Principal Investigator (PI): Schmedake, Thomas Co-PIs: Walter, Michael; Zhang, Yong	Chemistry	Sponsor: National Science Foundation (NSF)
Intelligent Routing of Multiple UAVs for Power Line Inspection	\$250,000	Principal Investigator (PI): Akella, Srinivas Co-PI: Agarwal, Saurav	Computer Science	Sponsor: National Science Foundation (NSF)

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International Festival: To bring individuals in the Charlotte-Mecklenburg community together to learn about various cultures and celebrate the growing diversity of the region.	\$5,000	Principal Investigator (PI): Hoff, Joseph	International Programs	Sponsor: Arts and Science Council (ASC)
Linking Integrated Genome Browser and CyVerse	\$224,613	Principal Investigator (PI): Loraine, Ann	Bioinformatics and Genomics	Sponsor: National Institutes of Health (NIH)
Metabolic and Immune Consequences of Antibiotic-Related Microbiome Alterations during TB Treatment	\$40,525	Principal Investigator (PI): Fodor, Anthony	Bioinformatics and Genomics	Sponsor: Northwestern University Prime Sponsor: National Institutes of Health (NIH)
Mini-Roundabout CMF Development	\$181,948	Principal Investigator (PI): Pulugurtha, Srinivas Co-PI: Duddu, Venkata Ramana	Civil and Environmental Engineering	Sponsor: North Carolina Department of Transportation (NCDOT) Prime Sponsor: US Department of Transportation (DOT)
National Science Foundation Graduate Research Fellowship Program	\$92,000	Principal Investigator (PI): Reynolds, Thomas	Graduate School	Sponsor: National Science Foundation (NSF)
NC Space Grant Affiliate Program - NASA Funding GY2015 (Year 1 of 3)	\$10,000	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)
New Genes and Adaptation	\$365,777	Principal Investigator (PI): Rogers, Rebekah	Bioinformatics and Genomics	Sponsor: National Institutes of Health (NIH)
Novel Engineered Optical Components	\$250,000	Principal Investigator (PI): Aggarwal, Ishwar	Physics and Optical Science	Sponsor: DOD DN Naval Research Laboratory

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Novel Heat-Exchange Fluids Containing Heat-Conducting Sub-Nanometric Particles	\$20,000	Principal Investigator (PI): Egusa, Shunji	Physics and Optical Science	Sponsor: North Carolina Space Grant Consortium (NC Space Grant)
NSF Proposal: Support for Student Teams to Participate in an International Challenge at the Annual Conference of the American Society of Precision Engineering	\$31,200	Principal Investigator (PI): Smith, Stuart	Mechanical Engineering and Engineering Science	Sponsor: National Science Foundation (NSF)
Optimizing Student Team Skill Development using Evidence-Based Strategies	\$102,407	Principal Investigator (PI): Woehr, David	Management	Sponsor: Purdue University Prime Sponsor: National Science Foundation (NSF)
Planning an Affordable, Resilient and, Sustainable Grid in North Carolina	\$201,000	Principal Investigator (PI): Chowdhury, Badrul Co-PIs: Young, David; Manjrekar, Madhav; Mazzola, Michael; Cox, Robert; Cali, Umit	Energy Production and Infrastructure Center	Sponsor: NCDENR Department of Environmental Quality (DEQ) Prime Sponsor: Department of Energy (DOE)
Program on Technology Innovation: More Accurate Prediction of Solar Production Based Upon Weather Data	\$34,994	Principal Investigator (PI): Cali, Umit	Engineering Technology and Construction Management	Sponsor: Electric Power Research Institute (EPRI)
Research on Power Market Modeling and Simulation	\$50,000	Principal Investigator (PI): Bai, Linquan	Systems Engineering and Engineering Management	Sponsor: ABB, Inc.
REU Site: Making Future Communities: Infrastructure and Interaction Design for Cyber-Physical Systems	\$9,000	Principal Investigator (PI): Wilson, David Co-PI: Lipford, Heather	Software and Information Systems	Sponsor: National Science Foundation (NSF)

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SHF: Small: A Unified Memory-centric Architecture for Machine Learning Applications	\$497,576	Principal Investigator (PI): Cheng, Dazhao Co-PI: Wang, Yu	Computer Science	Sponsor: National Science Foundation (NSF)
SHF: Small: Collaborative Research: A Parallel Graph-Based Paradigm for HPC Parallel File System Checkers	\$249,736	Principal Investigator (PI): Dai, Dong	Computer Science	Sponsor: National Science Foundation (NSF)
SHIP at Hampton Creste Program Evaluation.	\$25,000	Principal Investigator (PI): Hatcher, Schnavia	School of Social Work	Sponsor: Mecklenburg County Department of Social Services (DSS)
Sugar Creek Charter School TIMS Computerized Bus Routing Project 2019-20	\$2,700	Principal Investigator (PI): York, Phillip	Urban Institute	Sponsor: Sugar Creek Charter School
The CISE REU Evaluation Toolkit Renewal Project	\$165,945	Principal Investigator (PI): Rorrer, Audrey	Computer Science	Sponsor: National Science Foundation (NSF)
Wireless Power Transfer for Switcher Trains	\$404,989	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)