

#	Name	School Department/Center	Research Interest/Topic	Project Name	Project Start Date	Project End Date	Publications	Web (if applicable)
1	Aditya Laxmi	SES-CEMS	renewable energy, energy from algae, alternative energy	Sustainable Aviation Fuel	6/1/2023	5/1/2027		https://www.stevens.edu/news/stevens-researchers-receive-award-for-aviation-fuel-research
2	Alexander Sutin	SES-CEDE	wind mills, structural health monitoring, conservation, invasive species control	Vibracoustic Modulation for Crack Detection in Wind Turbine Blades	6/1/2020	6/30/2023	Vibracoustic Modulation of Wideband Vibrations and Its Possible Application for Windmill Blade Diagnostics	https://doi.org/10.1016/j.jnstruc.2023.105113
3	Amro Fard	ISE	intelligent multi-energy engineering systems	All projects in the research program have a sustainability focus.	9/1/2022	Ongoing	S. O. Mahany, W. C. Schomburg, and A. K. Fard. Transforming the Grid's Architecture - Enterprise Control - The Energy Internet of Things and Interdisciplinary Graph Theory. IEEE Power and Energy Magazine. 17(5): 71-81, 2019	https://ieeexplore.ieee.org/abstract/document/8800000
4	Balidiseri Srinidhi	SR	sustainable finance, social finance, climate finance, labor and finance					https://www.stevens.edu/news/stevens
5	Barry Bunin	SES-CEDE	vulnerability of maritime systems including ships to cyber attacks and incursions					
6	Cheng Chen	SES-CEDE	hydrocarbons to subsurface energy, water, and environmental systems, such as oil and gas recovery, geological carbon sequestration, geological disposal of nuclear waste, subsurface environmental remediation, subsurface hydrogen storage, geothermal energy recovery, groundwater flow	Fundamentals of particulate amendment transport and compaction in hydraulic fractures and the application to effective remediation in Low-Permeability Clay				https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
7	Christos Christodoulidis	SES-CEMS	hydroelectric recovery, energy from algae, alternative energy	Enhancement of Fractured Compaction and Employment in Hydraulic Fractures				https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
8	Daniel Ruvinsky	SES-CE	salvage and recovery, marine hydrodynamics, coastal disaster systems	Technical Basis Feasibility Evaluation Studies (ABE-TN)				
9	Daniel Ruvinsky	SES-CEDE	salvage and recovery, marine hydrodynamics, coastal disaster systems	Scientific Forecast Reviews				
10	Dibyendu Sarker	SES-CEDE	water contaminants, soil contaminants, biodegradable chemicals, stormwater runoff	A novel phytoremediation method to cleanup lead based paint contaminated soils: Phase III Demonstration Study A system dynamics simulation model to assess bioaccessibility of lead in the environment, Jersey City, New Jersey Developing a Watershed Restoration Plan for Southern Barnegat Bay Little Egg Harbor Tributaries Green Remediation of PFAS in Soil and Water Green Retrofit of Stormwater BMPs for Pollution Prevention in Urban Coastal Communities of New Jersey Green Technology for in place Remediation of Coal Mine Spoil GDB Plans in Abandoned Mines Lowering the Bioavailability in Residential Soils of Variable Physics Chemical Properties using Sustainable In Situ Treatment Methods Optimizing Green Infrastructures and Low Impact Developments to Mitigate Runoff and Pollution Impacts on Freshwater Systems Resilient and human centered urban green technology for water health improvement	9/2/2022	8/31/2024		https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
11	Dihyan Kulkarni	SES-MSM	supply chain resilience, solar cells, green energy, sustainable batteries	Resiliency of Energy Resources and Supply Chain for the Industrial Base	9/2/2022	8/31/2024		
12	Fan Yang	SES-ME	heat transfer, energy conversion, thermal management, nanotechnology, materials, ocean salinity, climate change	Heat Conductor With High Thermal Conductivity for Electronic Packaging	1/1/2020	8/30/2023		https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
13	Feng Liu	ISE	machine learning, optimization, signal processing and control theory with applications to healthcare and renewable energy fields					
14	Foad Mubarek Pajuh	SB	Reverical, computational and algorithmic optimization, big data analytics of complex networks with applications in business analytics, social network analysis, financial network analysis and cybersecurity.					https://scholar.google.com/citations?user=swaf_dAaA&hl=en
15	Frank Fisher	SES-ME	chain-induced crystallization (CIC) of polymeric nanocomposites, characterization of nanoreinforced polymer systems, multiscale modeling of nano-composites and materials, industry compatible nanocomposite processing techniques, nanofunctionalized nanocomposites, mechanical characterization of materials at the nanoscale, viscoelastic behavior of polymeric materials, hybrid finite element - micromechanics methods					
16	George Kafafis	SES-CEDE	water resources, geohydrology, groundwater contamination, and environmental and marine systems					
17	Hedy Saltoun	STAR	conservation, invasive species control	Improving Invasive Species Detection				
18	Heng Liu	SES-ICE	space systems, complex system design, space logistics, space resource utilization, multi-mission space campaign design, space systems engineering, in-space servicing, assembly and manufacturing, human factors and behavioral performance in space, bioelectrical systems, engineering design in extreme environment	Subcontract: PFAS-Assisted 340-Degree Streaming Image Construction				
19	Hao Chen	ISE	space systems, complex system design, space logistics, space resource utilization, multi-mission space campaign design, space systems engineering, in-space servicing, assembly and manufacturing, human factors and behavioral performance in space, bioelectrical systems, engineering design in extreme environment					
20	Henry Du	SES-CEMS	ocean salinity, climate change	Resiliency of Energy Resources and Supply Chain for the Industrial Base	9/2/2022	8/31/2024		
21	Iman Alshabi	SES-MSM	supply chain resilience	Resiliency of Energy Resources and Supply Chain for the Industrial Base	9/2/2022	8/31/2024		
22	Jae Chul Kim	SES-CEMS	energy waste, sustainable batteries, renewable energy sources	A Study on the Improvement of Life and Storage Characteristics of Carbon for High Voltage Design Principles of Sodium-Functionalized Microporous Membranes for Desulfuration of Petroleum Products (PD) Optimal Chemical Dosimetry in Solid-State Supercapacitors Interface engineering for integration of a garnet-based solid electrolyte and a high voltage cathode for all-solid-state batteries Reusable Li plating and stripping enabled by electrolyte thin-functionalized current collectors for anode-free lithium batteries	10/1/2021 9/1/2021 10/1/2021 10/1/2021	2/1/2025 8/1/2023 7/1/2022 9/1/2022		https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
23	John Dzinski	SES-CEDE	autonomous marine systems (especially underwater vehicles), supercavitating and supercavitating vehicle technology, acoustic technology for detecting airborne and marine systems		8/1/2020	1/1/2022		
24	Jon Miller	SES-CEDE	coastal resilience/sustainability and living shorelines, coastal protection and rebuilding, climate change	New Jersey Coastal Protection Technical Assistance Service (NJCPFAS) New Jersey Sea Grant Coastal Processes Extension (NJSG) NJSP Wave Attenuation Curtis Inland Living Shoreline Design Beneficial Reuse NY Coastal Resilience Research Collaborative	7/1/2022 2/1/2022 4/11/2022 8/29/2021 9/1/2022 8/21/22	6/30/23 1/31/24 4/12/25 8/27/24 7/31/23 8/21/23	https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater	https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
25	Joel Ramirez-Montero	ISE	rehabilitation, engineering and systems safety					
26	Jurjan Qi	SES-MSM	electric power systems (coastal typhur, microgrid control, cyber-physical security, smart grids)	Resiliency of Energy Resources and Supply Chain for the Industrial Base				https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
27	Kailian Liu	SES-CEDE	sustain civil infrastructure systems and communities					https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
28	Knut Stamnes	SES-PHY	climate change					https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
29	Krishnavijay Subramanian	SES-ICE	artificial intelligence and machine learning	A Machine Learning Approach for Optimizing Real-Time Global Energy Trading				
30	Laura Kim	SES-CEDE	coastal resilience/sustainability and living shorelines	New Jersey Coastal Protection Technical Assistance Service (NJCPFAS) New Jersey Sea Grant Coastal Processes Extension (NJSG) NJSP Wave Attenuation Curtis Inland Living Shoreline Design Beneficial Reuse	7/1/2022 2/1/2022 4/11/2022 8/29/2021 9/1/2022	6/30/2023 1/31/2024 4/12/25 8/27/2024 7/31/2023	https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater	https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
31	Li Wu	SES-ICE	optimization and statistical analysis applied to power system operations and electricity markets, public policy and technical issues associated with electricity transmission and distribution under market restructuring, economic implications of the integration of renewables, co-optimization of coupled energy-dependent infrastructures	Effective, Scalable, and Sustainable Market Integration of Energy Storage Systems and Distributed Energy Resources Feasibility of Carbon-Free Power Grid in the Future				https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
32	Madhu Neelakrishnan	SES-MSM	supply chain resilience	Resiliency of Energy Resources and Supply Chain for the Industrial Base	9/2/2022	8/31/2024		https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
33	Marysue Temmi	SES-CEDE	water resources, remote sensing, geographic information systems, hydrogeology, land-atmosphere interaction, numerical modeling of atmosphere processes, natural hazards	Advancing research in cold regions hydrology to support the modeling and mapping of ice-induced flood inundation Assessing the Integration of river ice formation in the National Water Model to enhance river flow routing in northern watersheds				https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
34	Matt Jansan	SES-CEDE	coastal resilience and sustainability	New Jersey Coastal Protection Technical Assistance Service (NJCPFAS)	7/1/2022	6/30/2023		https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
35	Michael Salomon	SES-CEDE	salvage and recovery, marine hydrodynamics, coastal disaster systems	Resiliency of Energy Resources and Supply Chain for the Industrial Base	9/2/2022	8/31/2024		https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
36	Mohammad Ihsani	SES-CEDE	resilient infrastructure systems, disaster management, smart cities, smart facility management, data-driven uncertainty analysis	Resiliency of Energy Resources and Supply Chain for the Industrial Base	9/2/2022	8/31/2024		https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
37	Muhammad Hajj	SES-CEDE	forecasting, climate change, rising sea levels, flooding	Collaborative Research GOALI Bio-inspired bistable energy harvesting for fish telemetry tags Floating Oscillating Surge Wave Energy Converter Using Controllable Efficient Power Takeoff System Resiliency of Energy Resources and Supply Chain for the Industrial Base High Resolution Storm Surge Forecasts for Port Authority of New York and New Jersey Facilities Vulnerable to Flood Threats				https://www.stevens.edu/news/stevens-researchers-receive-award-for-advancing-groundwater
38	Nicholas Perrone	SES-PE	thermal/fluids with applications in defense and energy/sustainability					
39	Nikola Stankovic	STAR	conservation, invasive species control					

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40	Philip Otkrok	SEE	energy efficiency in buildings, energy justice and equity, data-driven control of energy systems	Grid Discovery	8/1/2020	N/A	Ghobadi Rezaei, H., Prasad, D., Otkrok, P., 2022, "Addressing social vulnerability in community microgrids: An equity centered peer-to-peer electricity trading model", 10th ACH International Conference on Systems for Energy Efficient Buildings, Cities, and Transportation (Building '20), Association for Computing Machinery, NY, USA, 1310-1314, doi:10.1145/3561397.3567632. Ghobadi Rezaei, Otkrok, P., 2022, "A Multi-Objective Optimization for Clustering Buildings into Smart Microgrid Communities", 2022 IEEE Green Energy and Smart System Systems (GESSC), 2022, pp. 1-6, doi:10.1109/GESSC55651.2022.995242. Ghobadi Rezaei, Otkrok, P., 2022, "An Energy Cost Optimization Model for Electricity Trading in Community Microgrids", 2022 IEEE International Smart Cities Conference (ISCC), 2022, pp. 1-7, doi:10.1109/ISCC55336.2022.992504. Prasad, D., Otkrok, P., 2022, "Towards an Equitable Grid-Interactive Efficient Building Landscape: Analyzing Technology Adoption in the State of New York", 2022 ACEEE Summer Study on Energy Efficiency in Buildings. Otkrok, P., 2021, "Exploring How the Heterogeneity of Building Types in Community Microgrid Impact Their Value Proposition", ASME International Design Technical Conferences, Design Automation Conference, St. Louis, MO, USA, DTI-2021-2070.	https://griddiscovery.com/
41	Philip Orton	SES-CEDE	forecasting, climate change, rising sea levels, flooding climate change impacts, coastal flooding, risk assessment, adaptation	Assessing Coastal Flood Risk and Potential Climate Threats in New York City Climate Vulnerability, Impact and Adaptation Analysis (CVIA)	9/1/2022 8/31/2022	8/31/2025 3/31/2024	https://www.stevens.edu/news/2023/09/01/ortons-and-balkans-research-lead-665-398-3-million-ghg-reduction https://www.stevens.edu/news/2023/08/31/ortons-lead-665-398-3-million-ghg-reduction https://www.stevens.edu/news/2023/08/31/ortons-lead-665-398-3-million-ghg-reduction	
42	Phar Akora	SES-EMS	synthesis and characterization of polymeric nanofibers, self-assembly of polymer-grafted nanoparticles, mechanical and structural relationships of ordered-disordered systems, developing new strategies for the self-assembly of nanoparticles, polymer-grafted nanoparticles in ionic liquids for energy applications, mechanically adaptive composite membranes for large-scale and high-temperature applications, multifunctional polymer composites for enhanced conductivity and reinforcement, patterned fiber functionalized surfaces for biosensing	RET REU Site Interdisciplinary Research Experience in Sustainable Energy and Bioengineering			https://www.stevens.edu/news/2023/08/01/akora-awarded-424000-ruat-grant-stevens-univ-should-build-electricity-energy	
43	Ravi Datta	SES-CEDE SES-OL	forecasting, climate change, rising sea levels, flooding experimental marine hydrodynamic vessel wave computational fluid dynamic (CFD) aspects of marine hydrodynamic ocean waves and turbulence	Model Ocean Build and Testing of a Variable Geometry Wave Energy Converter Design of a High-speed craft with zero emissions for passenger transportation between Galapagos islands				
44	Reza Maraboli	SES-CEDE	river and coastal flooding, storm surge, wave hazards, climate change	Resilient Assessment for Resilient Coastal Protection Induced by Failure of Seawalls				
45	Rita Sonea	SES-CEDE	nanomechanics, tribological, subsurface characterization, nanoscale, interfaces	Physics Based Assessment of Hurricane Induced Wave Hazards Under Climate Change: Barrier Islands of New Jersey				https://www.stevens.edu/news/2023/08/01/sones-and-balkans-research-lead-665-398-3-million-ghg-reduction
46	Shriva Hajmirza	SES-PE	data-driven modeling and design, energy resiliency and sustainability, inverse problems, machine learning/AI-based modeling and optimization, modeling energy transfer in complex media, energy conversion at nanoscale, topology optimization, additive manufacturing	Resiliency of Energy Resources and Supply Chain for the Industrial Base				https://www.stevens.edu/news/2023/08/01/sones-and-balkans-research-lead-665-398-3-million-ghg-reduction https://www.stevens.edu/news/2023/08/01/sones-and-balkans-research-lead-665-398-3-million-ghg-reduction
47	Simon Pothukottu	SES-CEMS	biomass conversion for sustainable production of chemicals	Catalysis Fundamentals of Selective Hydrogenation of Aromatic Hydrocarbons	5/1/2022	4/30/2024	https://doi.org/10.1021/acs.jpcc.2c01014	
48	Steven Hofferson	SSE	sustainable product design sustainability in complex systems	CAREER: Multidisciplinary and Life Cycle Holistic Sustainable Design Supporting Sustainable Evolution of Electrical Energy Systems via Closed-Loop Consumer Behavior and Market System Modeling	9/1/2001 6/15/2020	8/31/2026 5/31/2024	Baseman Trammant, H., Hofferson, S., 2023, "Sustainable Design of a Reusable Water Bottle: A Systems Thinking Approach", Conference on Systems Engineering Research (CSER), Hoboken, NJ, March 16-17. Carlini, M., Baseman Trammant, H., and Hofferson, S. (2020) "Exploring the Integration of SDM and LCA Tools to Improve Design for Sustainability", ASME International Design Engineering Technical Conferences, St. Louis, MO, August 14-17. Datta, Ravi, G., Hofferson, S., Lytle, A., and Wu, L. (2020) "Agent-Based Modeling of Consumer and Producer Behavior in Sustainable Energy Markets," IEEE Power & Energy Society General Meeting, Denver, CO, July 17-21. Datta, Ravi, G., Lytle, A., Hofferson, S., Wu, L. (2020) "An Experimental Study of the Effect of Monetary Incentives and Fees on Consumer Energy Behavioral Intentions," Conference on Systems Engineering Research (CSER), Hoboken, NJ, March 16-17.	https://www.nrel.gov/awardsearch/showAward?AWD_ID=2048558&historicalAwards=false;https://www.designspacelab.com/research
49	Timothy Flynn	STAR	conservation, invasive species control					
50	Tuan-Liang Su	SES-CEDE	environmental fate transport of energetic materials such as RDX, HMX, perchlorate, biological and physico-chemical treatment processes, biodegradability and bioremediation studies of non-waste consumer products, instrumental analysis (chromatography and spectroscopy), water conservation and compliance testing for water closets, backflow protection devices and plumbing fixtures					
51	Weira Meng	SES-CEDE	active and conduct research on recycling waste materials, such as waste glass, waste concrete, and off-specification fly ash in concrete, developing CO2 sequestration technologies for concrete, soil and groundwater pollution, remediation and industrial waste, air pollution, sustainable and smart infrastructure	Development of low carbon UHPC	8/1/2020	7/1/2024	I.S. Maljoubi, R. Barham, W. Meng, Y. Bao, "AI-guided auto-discovery of low-carbon cast-effective ultra-high performance concrete (UHPC)", Resource, Conservation & Recycling, 2023, 191, p. 106741. J.Z. Liu, Z. Wu, W. Meng, "Achieving low-carbon concrete using nano-CCO2 produced by CO2 sequestration", Journal of Cleaner Production, 2022, p. 133546. I.S. Maljoubi, R. Barham, W. Meng, Y. Bao, W. Meng, "Mitigation of Alkali-Silica Reaction (ASR) of Cementitious Composite Prepared with Recycled Glass as Fine Aggregate by Carbonation Curing", Journal of Cleaner Production, 2022, p. 133545. I.S. Maljoubi, R. Barham, W. Meng, Y. Bao, W. Meng, "Utilization of off-specification fly ash in preparing ultra-high performance concrete (UHPC): Mixture design, characterization, and life cycle assessment", Resource, Conservation & Recycling, 2022, 180, p. 106336. I.S. Maljoubi, W. Meng, Y. Bao, "Auto-tune learning framework for prediction of feasibility, mechanical properties, and porosity of ultra-high performance concrete UHPC", Applied Soft Computing, 2022, 115, p.108882. J.R. Li, W. Meng, "Recycling of waste concrete in eco-friendly strain-hardening cementitious composites: Historical, structural performance, and life-cycle assessment", Journal of Cleaner Production, 2022, 330, p.129911. J.D. Du, W. Meng, K.N. Khayat, Y. Bao, Y. Guo, Z. Liu, A. Abu-Eldehhab, H. Nassif, H. Wang, "New development of ultra-high performance concrete (UHPC) Composites Part B: Engineering, 2021, 224, 209220. J.B. Guo, W. Meng, Y. Bao, "Automatic identification and quantification of dense microcracks in high-performance fiber-reinforced cementitious composites through deep learning-based computer vision", Cement and Concrete Research, 2021, 148, 106532. J.B. Guo, Y. Bao, and W. Meng, "Review of using glass in high-performance fiber-reinforced cementitious composites", Cement and Concrete Composites, 2021, p.104632. J.Z. Liu, W. Meng, "Fundamental understanding of carbonation curing and durability of carbonation-cured cement-based composite: a review", Journal of CO2 Utilization, 2021, 201428. J.B. Guo, W. Meng, H. Nassif, H. Guo, Y. Bao, "New Perspective on Recycling Waste Glass in Manufacturing Concrete for Sustainable Civil Infrastructure", Construction and Building Materials, 2020, 237, 119579.	https://web.stevens.edu/education/ ; https://www.stevens.edu/news/stevens-institute-technology-engineering-professor-conducts-robot
52	Xiaoguang Meng	SES-CEDE	wastewater recovery, energy from algae, alternative energy, water contaminants, nanotechnology					
53	Yeganeh Hayati	SSE	resiliency - transportation sustainability, automated technologies, transportation, greenhouse gas emissions, fuel efficiency, air pollution	NSF: Resiliency in Hoboken	1/1/2022	12/1/2023	I. Bucar, Rafi CB, and Yeganeh H. Hayati, "Quantitative assessment of the impacts of disruptive precipitation on surface transportation", Reliability Engineering & System Safety 203 (2020): 107105. I. Bucar, Rafi CB, and Yeganeh H. Hayati, "Quantitative flood risk evaluation to improve driver's route choice decisions during disruptive precipitation", Reliability Engineering & System Safety 219 (2022): 108202.	https://www.stevens.edu/news/2023/08/01/sones-and-balkans-research-lead-665-398-3-million-ghg-reduction
54	Yi Bao	SES-CEDE	soil and groundwater pollution, demolition and industrial waste, air pollution, sustainable smart infrastructure					
55	Yong Shi	SES-PE	active nanostructures such as nanofibers and nanotubes for mechanical, thermal, solar, and chemical energy harvesting; novel actuators and sensing technologies for biomedical and structural health monitoring applications; power and biomedical MEMS/NEMS design and fabrication; experimental micro/nano mechanics and electro-mechanical coupling					
School/Department/Center Abbreviations SES: School of Engineering and Science CEMS: Department of Chemical Engineering and Materials Science CEDE: Department of Civil, Environmental and Ocean Engineering CEES: Center for Environmental Systems (Dalls under CEDE) DL: Division Laboratory (Dalls under CEDE) ECE: Department of Electrical and Computer Engineering HMI: Highly Filtered Materials Institute (Dalls under CEMS) HE: Department of Mechanical Engineering PH: Department of Physics STAR: Sensor Technology and Applied Research Center (Dalls under SES) SB: School of Business SE: School of Systems and Enterprises								
Total Department/Center			6 SES (CEMS, CEDE, ECE, HE, PH, STAR), SB, SE					