DOR NEWEST INITIATIVE

The Division of Research (DOR) has a new initiative called We are Your Team. Through this initiative, representatives from the DOR meet with faculty in their office or lab to learn more about their research and needs. This connection gives the faculty member an overall picture of how each of the units within the DOR work, and ideas of how the units could assist the faculty member. This connection also educates units in the faculty’s specific research, helping them find collaborators, funding and other opportunities.

Here is a look at some of the researchers DOR has recently met.

If you want a DOR team to visit you, reach out to fau.research@research.fau.edu.

Masoud Jahandar Lashaki Ph.D.

Masoud Jahandar Lashaki Ph.D., is an assistant professor of civil, environmental and geomatics engineering in the College of Engineering and Computer Science. After obtaining his degrees in chemical engineering, Lashaki completed his doctorate studies in environmental engineering at the University of Alberta in Edmonton, Canada.

Prior to joining FAU in 2019, he served as a research associate at the University of Ottawa from, followed by serving as a research engineer at a Canadian cleantech company, Svante Inc., formerly Inventys Inc.

Lashaki’s research involves the development of highly efficient and cost-effective adsorbent materials for selective removal of carbon dioxide and organic vapors from polluted gas streams, improving air quality in our communities. He has co-authored 19 journal articles in renowned venues, exemplified by a recent state-of-the-art review article in Chemical Society Reviews on the long-term stability of carbon dioxide adsorbents. Lashaki’s work was also featured in seven funded research proposals for Ford Motor Company and the Natural Sciences and Engineering Research Council of Canada, which collectively attracted about $1.2M in research funding. His scholarly contributions have been acknowledged by more than 30 awards, totaling nearly $160,000, exemplified by first place doctoral dissertation award from the Air and Waste Management Association.
Wazir Muhammad, Ph.D.

Wazir Muhammad, Ph.D., is an assistant professor of physics in the Charles E. Schmidt College of Science. Before joining this department in September, he was an associate research scientist at Yale School of Medicine, Yale University. He completed his doctorate in radiation physics in 2013 under Korean government scholarships from Kyungpook National University. At Yale University, he worked on the development of an early warning system by actively tracking all organ dose data for individual patients in order to improve patient safety in radiation therapy and a multi-parameterized artificial neural network based on easily available personal health data to predict cancer risk prior to symptom onset.

Muhammad also developed a Monti Carlo (MC) radiation transport package for transport of photons, electrons and positrons up to 650 MeV energy in a complex geometry. The developed dose engine has produced comparable simulation results with such an established MC code as EGSnrc and experimentally measure percent depth dose for Co-60 teletherapy machine.

His research interests are on different modes and techniques of radiation therapy including photon and particle therapy, MC simulation of radiation transport in media, applications of machine learning and artificial intelligence (AI) in radiation oncology and cancer risk estimation through AI.

Anthony Stagliano, Ph.D.

Anthony Stagliano, Ph.D., is a theorist of rhetoric and of media who study creative interventions into the relationship between contemporary media technologies and our embodied selves.

This relationship articulates in seemingly innocuous ways, such as wearable health monitoring technologies, as well as ways that appear more authoritarian, such as ubiquitous facial recognition surveillance. Creative interventions into such interfaces teach us a great deal about the possibilities and risks of technologically mediated practices of selfhood, citizenship, social being, and, thus, rhetoric.

Stagliano joined FAU in the fall of 2019. Previously, he as an assistant professor in the English at New Mexico State University. His work has appeared in the edited collections Tracing Rhetoric and Material Life, Rhetorical Machines, and is forthcoming in the collection Bodies of Knowledge. He is working on a monograph, currently titled Biotechnologies of Disobedience.

Stagliano is also a practicing filmmaker and video artist, whose work has been shown in galleries and festivals around the world. His feature film, titled Fade, was released commercially in the United States.
Milad Baghersad, Ph.D.

Milad Baghersad, Ph.D., is an assistant professor of information technology and operations management in the College of Business. He received his doctorate degree in business information technology from the Pamplin College of Business at Virginia Tech. Prior to joining FAU in 2019, he was a visiting faculty member at Cleveland State University. At FAU, he teaches data mining and predictive analytics to undergraduate students and advance business analytics to graduate students.

Baghersad’s primary research interests include supply chain disruptions and disaster operations management. He uses both analytical modeling and empirical analysis in his studies and has published papers in peer-reviewed journals including the Decision Sciences Journal, International Journal of Production Economics, Transportation Research Part E and the Socio-Economic Planning Sciences.

Currently, he is working on a few research projects, including citizen participation in public services after disaster events, and chasing impacts of hurricanes through supply chain networks.

Here’s a look at each:

Citizen participation in public services after disaster events

In modern societies, the delivery of public services depends highly on citizen participation in service creation. This participation becomes more critical after disaster events. In many large urban areas in the United States, such as New York City and Houston, the local governments have established 311 public request centers to receive service requests from their citizens. Public service requests submitted through these centers have recently become publicly available. Using this new source of data, researchers can evaluate the relationships between characteristics of individuals (such as education and age) and their participation in co-production of public services after disasters. This research provides important insights about how people participate in co-production of public services after disasters and how local governments can improve citizens’ co-production after disasters.

Chasing impacts of hurricanes through supply chain networks

Hurricanes are becoming more frequent in the United States. Five devastating hurricanes, including hurricanes Matthew, Harvey, Irma, Maria and Nate, occurred in 2016 and 2017 alone. These events not only disrupt firms in the affected areas, but also disrupt suppliers and customers of the affected firms through supply chain networks. An important avenue for future research therefore would be mapping disrupted firms’ supply chain networks, evaluating the impacts of hurricanes on the firms in different levels of supply chain networks, and finding the best strategies to improve firms’ resiliency against hurricanes. To this end, using quarterly and annual reports of U.S. publicly traded firms, firms that have been directly impacted by hurricanes during 2016 and 2017 have been identified and disrupted firms’ supply chain networks mapped.