



Jimmy Adegoke (1963-Present)

Assistant Professor of Geosciences

University of Missouri

"There are huge openings in this field, and any minority who wants to make a career in it will be welcomed." Jimmy Adegoke, 2006.

Overview

Dr. Jimmy Adegoke is an associate professor and department chair of the Geosciences department at the University of Missouri. His research interests include understanding how land surface drives weather and climate using remote sensing, and other climate models. One of his projects in the Niger Delta uses GIS and Remote Sensing to understand the political, socioeconomic, and physical pressure in the Niger Delta and its impact on sensitive ecosystems. He has received numerous awards including the UMKC Trustees' Faculty Scholar Award in 2007. Some of his selected publications include:

- **Adegoke, J. O.**, Steurer, J. F., Green, C., Willoughby, T., 2009: The Kansas City Missouri ground level ozone (GLO) project: A community-based air pollution field experiment. *Journal of Environmental Health* (accepted)
- Balogun, A., **Adegoke, J. O.**, Sajith, V., Mauder M., Gallo, K., 2009: Surface Energy Balance Measurements Above an Exurban Residential Neighbourhood of Kansas City, Missouri. *Boundary Layer Meteorology* (Published Online - DOI 10.1007/s10546-009-9421-3)
- Carleton, A.M., D.L. Arnold, D.J. Travis, S. Curran, and **J.O. Adegoke**, 2008: Synoptic circulation and land surface influences on convection in the Midwest U.S. "Corn Belt" during the summers of 1999 and 2000. Part I: Composite synoptic environments. *J. Climate* 21 (14) 3389-3415
- Carleton A.M., D.J. Travis, **J.O. Adegoke**, D.L. Arnold, and S. Curran, 2008: Synoptic circulation and land surface influences on convection in the Midwest U.S. "Corn Belt" during the summers of 1999 and 2000. Part II: Role of vegetation boundaries. *J. Climate*, 21 (15) 3617-3641

Early Life and Education

Jimmy Adegoke credits his successful career in the environmental field to two factors: his family's emphasis on education, and the close guidance of mentors. Growing up and attending undergraduate school in Nigeria, "The idea of building a career in the environmental sciences wasn't something that I was

exposed to,” Adegoke recalls. “But I think that my career was strongly influenced by growing up in the family that I did. My dad was an educator, and he insisted on his children getting a good education. Anywhere in the world, that will always be the key...when parents make an investment in their kids, it pays off.”

Adegoke majored in Geography, with minors in Physics and Geology, as an undergraduate at Ahmadu Bello University. Although it was a large university, Adegoke managed to establish a close relationship with a professor who proved to be a tremendous influence. The professor introduced Adegoke to climate research, and convinced him that the field held abundant opportunities. “He told me that climate science would become important in the future, and that there weren’t a lot of people doing it,” Adegoke says. “As it turns out, he was absolutely right.” Since then, Adegoke has devoted his efforts to studying, researching and educating others about climate science; specifically, how human and natural alterations to the land surface (e.g., land use changes) interact with and alter climate processes.

Importance of Mentoring to Career

Adegoke taught math and science in a Nigerian high school before going to the University of Ibadan, where he earned his M.S. in Geography, specializing in Climatology. After relocating to the United States in the early 1990s, he conducted research at the Joint Institute for the Study of the Atmosphere and Oceans (JISAO) at the University of Washington, and went on to get his Ph.D. from Pennsylvania State University, focusing on Satellite Climatology. At both institutions, he again benefited from close mentoring, this time at the hands of some of the country’s foremost climate researchers. “I had the privilege of being mentored by top-notch scientists who valued investing in younger folks. They taught me the importance of mentoring, and as a result I now pay particular attention to that,” Adegoke notes.

Adegoke did a National Oceanic and Atmospheric Administration (NOAA) post-doctoral fellowship at Colorado State University from 2000-2002, where he developed methods to incorporate satellite data into regional climate models. Since then, he has been a faculty member in the Department of Geosciences at the University of Missouri at Kansas City (UMKC), and is currently an associate professor and department chair. Since coming to UMKC, Adegoke has developed additional research interests in climate-societal issues, especially as they relate to rapidly developing urban areas. He has also worked hard to extend his work outside the confines of the university. “I’m passionate about making my work relevant to society,” Adegoke says. “The environmental field gives you a very broad platform to do research...and some of that research can have direct benefits to society. You can see the immediate result of your work because you are doing stuff that directly impacts people’s lives. That’s very rewarding for me.”

Mentoring Others

Adegoke feels strongly about the importance of mentoring and educational outreach efforts, especially when that outreach targets minority students. He directs the Minority Outreach Science Enrichment Program (MOSEP) and the Global Learning and Observations to Benefit the Environment (GLOBE) at UMKC, and recently secured a major National Science Foundation (NSF) grant to develop a pipeline strategy to increase the number of minority students majoring in the Geosciences. Adegoke stresses that quality teaching and strong family support are keys to creating minority pathways into the environmental

field. “For the next four years, we will be working with the Kansas City Missouri School District to strengthen science teachers’ preparation,” he says. “That’s one thing we’ve identified as being a ‘missing link.’” The program will also directly link high school students with research, mentorship, and scholarship opportunities in the geosciences. In addition, Adegoke works with minority students through the Louis B. Stokes Alliance for Minority Participation (LS-MoAMP) program, and a number of his Ph.D. students have been minorities.

Highlights

“I love my job because it gives you opportunities to grow and to explore different questions,” Adegoke says. “I could have majored in Physics, but I don’t envy people who spend their entire careers holed up in a laboratory conducting experiments. The physical environment is my laboratory and field work gets my juices flowing.” Adegoke does field work in a variety of locations, from urban Kansas City to various places abroad, including in his native Nigeria, where he is currently conducting research examining the fate of mangrove forests. Satellite data of the Niger Delta indicates that over 21,000 hectares of mangrove disappeared from the region between 1986 and 2003. Adegoke says, that rapid urbanization, land clearing for oil and gas exploration, and oil production combined with overland transport are the major factors contributing to the forest’s rapid diminishment. “It’s a big deal because this is one of the most productive and diverse ecosystems in the world,” Adegoke notes. “Hundreds of communities in the Niger Delta derive their living from the creeks and mangrove forest ecosystem in that area.”

The realization that his work is urgently needed is perhaps the strongest factor influencing Adegoke’s decision to join – and remain in –the environmental field. “In addition to being able to travel and do field research, it’s a great field to be in because we’re dealing with important questions that society is looking for answers to,” he says. “What is happening to our water, air and forests? How do all of these factors influence the climate?”

Advice to Young Professionals

Adegoke strongly encourages young people of color who demonstrate a curiosity about the natural world to seek out a career in the environmental sciences. “We absolutely do not have enough minorities in this field,” he says emphatically. “And the field is wide open! The environmental and geoscience communities are actively looking to expand their disciplines and attract minorities. There are huge openings in this field, and any minority who wants to make a career in it will be welcomed. I absolutely encourage anyone looking for a fun, interesting career with good opportunities for advancement to take a look at any of the environmental science disciplines.”

For More Information

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