TSU Engineering Faculty Dr. Lin Li Receives NSF Excellent in Research Grant

|  | Dr. Roger Painter <br> (co-PI) | Dr. Lonnie Sharpe <br> (co-PI) |
| :---: | :---: | :---: |
| Department Head of Civil <br> (PI) <br> and Architectural <br> Engineering | Professor of Environmental <br> Engineering |  <br> Physical Sciences, Massie <br> Chair of Excellence |

The National Science Foundation has awarded Department of Civil and Architectural Engineering Professor and Department Head, Dr. Lin Li, Professor Roger Painter, Dean of College of Life \& Physical Sciences, Massie Chair of Excellence Lonnie Sharpe a $\$ 395,000$ Excellent in Research grant. This award, "Collaborative Research: Fate and Transport of Neonicotinoid Insecticides in Environment", is to collaborate with Jackson State University to study the fate and transport of Neonicotinoid insecticides in environment with a total funding of \$1M.

Neonicotinoids have become the world's most widely used insecticides The lack of knowledge andscientific data on the environmental behaviors of neonicotinoids hinders the understanding of the potential environmental impacts of their uses and the establishment of environmentally sound regulations and practices. The goal of this project is to acquire in-depth knowledge and data on the environmental fate and transport of the widely used neonicotinoids after they have been applied to agricultural soils. Major tasks of the project are to examine the sorption-desorption and degradation mechanisms, transport and dissipation/accumulation of neonicotinoids in soil and in water bodies. The scaled-up greenhouse and field tests will provide knowledge and data on the behaviors of neonicotinoids in the environment in a greater breadth and depth. The implementation of this project will create opportunities for TSU students and TLSAMP students to participate in scientific research and training. This study will also enhance the environmental engineering courses at TSU by incorporating the procedures and findings of this project.

