TSU researchers seek to improve air quality

Department of Transportation (TxDOT) has awarded a 2-year research contract to a team formed by Texas Transportation Institute (TTI) and Texas Southern University (TSU). The study will help develop effective emission control strategies in the region. This project will be directly beneficial to the existing effort to improve and develop more effective emission control strategies and air quality in the region. The findings of the study will also be of direct use to other agencies such as Metropolitan Planning Organizations (MPOs), the Texas Commission on Environmental Quality (TCEQ), and the U.S. Environmental Protection Agency (EPA) in their development of emissions standards.

TSU’s research team, led by Dr. Lei Yu, Department of Transportation Studies, will collect and characterize real-world gaseous particulate matter emissions data and corresponding engine activity data of heavy-duty diesel vehicles. This research is important in that Houston-Galveston-Brazoria areas are classified as the non-attainment areas by U.S. Environmental Protection Agency (EPA) in terms of the air quality. If emission reduction required by EPA is not achieved in a certain time period, this area will run the risk of losing the funding for future transportation projects. So, reducing vehicle emissions will contribute to the improvement of the air quality, and continue the development of the regional economy.

Researchers at Texas Southern University were the first group of pioneers in the nation, who used the Portable Emission Measurement System (PEMS) to study the relationships between transportation and vehicle emissions. TSU has established high reputation in this field nationally as well as internationally. TSU will continue to use this unique technology to collect the data needed for analysis.