2008-09 Proposed Project

S-STEM Program Reciprocal Mentoring Experience

Post Date: November 4, 2008

Posted By: Yue Li

Anticipated Date for Start: November 10, 2008

Do Not Consider After:

Project Title: Effect of Climate Change on Sustainable Built Environment

Team member(s) needed:

Faculty participants, if known: Yue Li, CEE

PhD student participants, if known: PhD student Yuejun Yin, CEE

MS student participants, if known: MS student Sigridur Bjarnadottir, CEE

For more information, talk to: Yue Li yueli@mtu.edu

Project Description:

Studies have been conducted to confirm the relationship between rising sea surface temperatures as a result of climate change and increased hurricane intensities. This project will investigate the effects of climate change on built environment and explore the effective strategies to offset the additional damage caused by warming climate. Wind field models are to be reviewed and evaluated to identify appropriate hurricane wind model. This model will then be utilized in regards to the projected rise in temperature and wind speed as a result of climate change. The wind field model will then be integrated with the wind damage model to predict the effects climate change will have on the risk on the built environment. Several possible mitigation strategies to adapt to such an effect will be investigated to achieve a sustainable built environment. The built environment in the Gulf Coast will be chosen as a case study.