Program Location
As South Florida’s first urban public research university, FIU is the university of access for the region’s four million residents. By taking advantage of FIU’s composition and location, we particularly focus on the education and recruitment of Hispanic and African American students. FIU is located in the great Miami area which serves as a large point of immigration. With a sprawling urban system of more than 380,000 students and over 333 schools, the student population in the Miami-Dade County Public Schools (M-DCPS) is composed of a large proportion of minority. Specifically, 87% of M-DCPS student population is minority (56% Hispanic and 31% African American).

Objectives
The objectives of the outreach activities are:
1. Improve interest and comfort level of K-12 students and families with STEM subjects as applied to Transportation Engineering.
2. Develop a STEM education and training dissemination program in Transportation Engineering.

Project Activities
1. LEGO® Robot Vehicle Lesson Plans
This program is a summer activity for groups of no more than 20 students.

2. Transportation Day
This activity is coordinated by the ITS Student Chapter. The hands on activities are designed to promote interest in transportation engineering.

3. Engineering Events
This activity was coordinated with the Annual Engineering Expo which took place during Engineers week at FIU. In addition, ITS students will coordinate activities with elementary schools to conduct additional interactive demonstrations.

Collaborations
The faculty in collaboration with FIU ITE Student Chapter is working with the area schools to promote transportation engineering, transportation technology, and role of transportation engineering for establishing livable communities.

The activities focus on use and importance of GIS, traffic safety education, traffic simulations, and educational hands on activities with direct use of science, technology, mathematics and engineering concepts. The activities target students specifically in elementary, middle and high schools in Dade County as well as parents.

Program Focus
1. Emphasis on science, technology, engineering, and mathematics skills for a diverse student population with examples from transportation engineering,
2. Outreach and parental educational materials,
3. Curriculum development and support,
4. Teacher training,
5. Integration of technology into classrooms,
6. Dissemination of effective science and engineering education practices focusing on transportation related subjects (e.g., safety, planning, transport of people and cargo).

Planned Activities
In collaboration with FIU ITE Student Chapter, the elementary and middle school students will be introduced to different video games which provide direct exposure to engineering aspects of traffic safety, scheduling, planning as well as demand management. Once established, this program will be conducted on a continuing basis as an annual event which will be celebrated as “FIU Transportation Day.”

In addition, the educational materials and hands on activities are being distributed and transportation engineering modules are being implemented through FIU’s existing outreach programs operating at five elementary schools serving grades 1st - 4th as afterschool programs.

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