Abstract

The education component of CenSSIS at UPRM is centered on the High-Tech Tools and Toys Laboratory. Most of the educational activities are carried out through this laboratory. The laboratory serves as a host to the Introduction to Electrical Engineering course for freshman students, which in turn is used as the source for CenSSIS Scholars. In addition, the laboratory hosted the Engineering Electromagnetics pilot course and the Computer Vision course, and it is also used for several outreach activities. As part of the educational activities, several students are selected every semester to participate in undergraduate research. Also, CenSSIS Scholars are selected from the very best students in the Introduction to Electrical Engineering course and are asked to help in the Tools and Toys Lab reviewing course modules. Finally, with three ERCs present at UPRM, a seminar series was developed to present the Center’s work every two weeks. As part of the educational activities, a program is being developed for the LEGO Mindstorms robotic system. A graphic interface is being created to program the robots using the JAVA programming language platform. The outreach program is aimed at high-school, middle school and elementary school students.