

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)

Lift Off - Secondary Space Education (2)

Author: Mr. Samuel Anih

African Regional Center for Space Science and Technology Education in English (ARCSSTE-E), Nigeria,
anihsammy@gmail.com

HUMANO-ROBOT LEARNING (HURL): AN INTEGRATED ROBOTIC EDUCATION APPROACH

Abstract

Navigating a crowded school yard to a target is an easy task even for a student not used to that environment; however for a mobile robot it is an uphill task that requires lots of motion design, planning and execution to achieve such seemingly simple task. Bringing robotic concepts of that nature home to most students have proved complicated and took time to master in the early part of previous robotic workshops as the students have to grapple with so many concepts during introduction to educational robotics.

The Humano-Robot Learning (HuRL) is a mobile robot learning precursor project designed for educational robotics workshops that combines teamwork, role-play to motivate and inspire students in the late primary and early secondary school in South Western Nigeria to appreciate robotics.

Educational robotics is relatively new in Nigeria but is beginning to gain attention most especially due to the effort of the African Regional Centre for Space Science and Technology Education in English, Ile-Ife, Nigeria. There is the need to further develop effective strategies to enhance the existing educational robotics problem solving methodologies. *HuRL* enables participants of educational robotics workshops to better understand basic concepts, algorithm development and rudimentary design skills required for building and programming educative mobile robots and in the process buttress the knowledge of science, technology, engineering and mathematics (STEM). This article describes the methodology and the outcome of *HuRL* in several robotic workshops conducted. The results show increased assimilation of concepts and improved performance by participants.