

AUGMENTED REALITY APPLIED TO NATURAL SCIENCES

Prof. Bárbara Maria Lemos FERREIRA
Instituto Federal Fluminense
BRAZIL

Prof. Thaís Nogueira FERNANDES
Instituto Federal Fluminense
BRAZIL

Prof. Dr. Suzana da Hora MACEDO
Instituto Federal Fluminense
BRAZIL

ABSTRACT

This research presents Augmented Reality applied to Natural Sciences, specifically wind energy. A Learning Object showing the generation of wind energy was used in an experiment with high school students. In this Learning Object, the student can see the energy generation in an Augmented Reality environment. In the environment created in Augmented Reality there is the simultaneous presence of real and virtual objects. In this environment, the students could interact with the Learning Object. This work was based on the theory of Meaningful Learning, which, according to Ausubel, occurs when a concept is related in a substantive way and not arbitrary concepts with pre-existing in the cognitive structure of the individual. Reviews and evaluations were done to complete the work, highlighting its advantages in the learning process.

Key Words: Augmented Reality, Meaningful Learning, Natural Sciences.