APPLICATION FOR VISUALIZATION OF SHADOW FORMATION ON BICONVEX AND BICONCAVE LENSES FOR SENIOR HIGH SCHOOL LEVEL

Student’s name : FRIZCO SURGARIA  
NRP : 5105 100 078  
Major od Department : Teknik Informatika FTIF-ITS  
First Advisor : DR.IR. JOKO LIANTO BULIALI, M.SC.  
Second Advisor : DWI SUNARYONO, S.KOM., M.KOM.

ABSTRACT

In the era of student-centered learning, the use of computer visual application is one method that can facilitate the easier explanation of physics which is usually considered difficult by the students. The making of this application intended to help the nowadays learning system where words are the main tool of explaining physics to students. This application was meant to be a subsidiary for physics especially the lesson of lens since it can visualize the forming of image of either biconvex or biconcave lens. It can also show the calculation result, the magnification, the image position, height, and characteristics. EJS is a tool which is used to implement the making of the visualization application. EJS has the ability to integrate texts, images and animations which can help to develop the physics learning process.

Based on the tested experiments, this application is proved to work very well and efficiently so that it can show the calculation result and the correct visualization of the image which is formed.

Keywords: learning, biconvex lens, biconcave lens, visualization, EJS.