ABTRACT

The algorithm course has quite a lot material, such as the concept of data types, arrays, branches or selections, procedures and functions, matrices, recursive algorithms, algorithms of searching, and sorting algorithms. Therefore, not a few students of the initial level of difficulty to capture a lot of course material, one of the materials about the sorting algorithm. Therefore, it is necessary to enrich the learning media to increase the knowledge of students in understanding the sorting algorithm with multimedia-based.

Computer Assisted Instruction (CAI) is a system of delivering computer-based learning materials whose lessons are designed and programmed into the system in a communicative and interactive way. CAI method itself takes advantage of interactive multimedia in the development of instructional applications.

This thesis research describes the development process of multimedia-based solar application learning with the stages of Multimedia Development Life Cycle (MDLC) so as to facilitate the development of learning applications that can operate properly. By applying CAI and multimedia-based methods are expected to present information that can be seen, heard and done, so it is very effective to be an alternative learning media in addition, books, ebooks and slides to support students gain an understanding in the sorting algorithm.

Keywords : Solar System, CAI, MDLC, Interactive Multimedia, Learning Applications