

DEVELOPMENT LEARNING MEDIA OF AUGMENTED REALITY (AR)-BASED MOBILE LEARNING FOR THE INCLUSION OF MODULAR PRODUCTION SYSTEM COMPONENTS IN INDUSTRIAL AUTOMATION TRAINING KIT

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ABSTRACT

This research is entitled Development of Augmented Reality (AR) Based Mobile Learning for instructional Media for Introduction to Modular Production System Components in Industrial Automation Training Kits. The objectives of this research are to create AR-based Mobile Learning for instructional media, to determine the performance of AR-based Mobile Learning for instructional media, and to determine the feasibility of AR-based Mobile Learning for instructional media to introduce Modular Production System components in industrial automation training kits.

This research is a development research with ADDIE Robert Maribe Branch design. This research was designed for 5 years of research, namely in the first year developing AR-based software, in the second year implementing the learning process, in the third year developing Virtual Reality (VR)-based software, in the fourth year implementing the learning process, and in the fifth year perfecting AR and VR final products. industrial automation trainer kit.

The results of this study show that: (1) the learning media produced is an application assisted by AR technology that can visualize the components of the MPS distributing station in three dimensions with the name Distributing Station_AR which can be used as a distance learning medium for flexible manufacturing system courses, (2) the results of product performance obtained from functional testing, it is known that the developed application can function properly according to the plan, (3) the level of feasibility in terms of the assessment of media experts obtains a value of 81.94% and is stated in the very feasible category, the feasibility level is reviewed from the material expert's assessment, it obtained a value of 90.63% and was stated to be in the very feasible category, the feasibility level in terms of user ratings obtained a value of 90.36% and was stated in the very feasible category.

Kata Kunci: augmented reality, virtual reality, mobile learning