

DEVELOPMENT OF ONLINE LEARNING MEDIA FOR LEARNING BASIC OF ELECTRONIC CONTROL SYSTEMS IN PANDEMIC COVID-19

by Tafakur, Moch. Solikin, Ayu Sandra Dewi, Dimas Ajie Satria, Fajri Nur Hidayat, Priti, Dyana Arum Nugraini

ABSTRACT

This study aims to determine: (1) the need for learning media in online practice of Basic Electronic Control System, (2) design of practical learning media of Basic Electronic Control System for online lectures, (3) the results of developing online learning media of Basic Electronic Control System, (4) Knowing the feasibility of online learning media for Basic Electronic Control Systems, (5) Knowing student responses to the results of developing online learning media for Basic Electronic Control Systems.

This research was conducted using research and development (RND). Research begins with research carried out through 5 stages, namely: (1) needs analysis stage, (2) product design stage, (3) product development stage, (4) product use implementation stage, and (5) product evaluation stage. Data retrieval using documentation and questionnaires. The validity and reliability of the research instrument was carried out through content validity and construct validity by testing on 38 students. The test results were analyzed by analyzing the validity of the product moment and reliability using the split half technique of Spearman Brown. Needs analysis data were analyzed using quantitative descriptive to see the need for online learning media. The data from the development of the media were analyzed to assess the feasibility of online learning media, as well as responses from users.

The results showed that: (1) the learning media needed by students and the most optimal to support motivation and benefit in students' online learning were animation and video media types; (2) Design of learning media for basic practice of electronic control in the form of video tutorial designs to simulate basic practice of electronic control (11 jobs); (3) The results of media development in the form of 11 video tutorials with a duration of 10-15 minutes for each job; (4) the feasibility of the video tutorial development results obtained in a very suitable category for use based on the assessment of material experts, media experts, and student groups; (5) student responses to video tutorials that were developed in the good category to support lectures on the basic practice of automotive electronic control systems.

Kata Kunci: *Learning media, tutorial video, electronic control systems*