**Analysis Of The Need for The Development Of Learning Media For IOT-Based Smart Building Installation Systems In Vocational High Schools**

**A Salsabila1 M. Khairudin2**

1Postgraduate Program of Electrical Engineering Education, Universitas Negeri Yogyakarta, Indonesia

2Department of Electrical Engineering Education, Faculty of Engineering, Universitas Negeri Yogyakarta, Indonesia

E-mail: azzahrasalsabila.2019@student.uny.ac.id, moh\_khairudin@uny.ac.id

**Abstract.** Learning media is a means of learning for students that can provide a real picture of real work that has a high risk if it is carried out directly. Learning media has a role in facilitating students to be able to experience it directly with minimal risk from a practicum. Analyzing the need for making learning media is very important for the development of real learning media. This study aims to: (1) Determine the need for the development of learning media for IOT-based smart building installation systems in SMK; (2) Analyzing the needs used in the development of learning media for IOT-based smart building installation systems in SMK. The results showed that the things needed in developing IOT learning media were seen from the technology used in the form of (1) Software based on media interaction with the internet using a visual studio; (2) Arduino Uno, temperature sensor device, ESP8266, gas sensor and light sensor are needed as hardware to reflect building capabilities; (3) The cloud computing system uses spreadsheets to store data; (4) Internet network for uploading and downloading data. In its implementation, a needs analysis for the development of instructional media is needed so that in the later development process the media is developed appropriately and on target. The results of the literature study indicate that it is necessary to develop learning media for IOT-based smart building installation systems in vocational high schools.