SURVEILLANCE SISTEM BERBASIS MIKROKONTROLER ARDUINO UNO DI SMK PIRI 1 YOGYAKARTA

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ABSTRACT

The community service program is a form of direct service to parties interested in the study program at Yogyakarta State University. This PPM program is implemented in SMK Piri 1 Yogyakarta, especially in the Audio Video Engineering and electrical installation engineering program. Scientific development programs, especially Arduino microcontrollers, are very necessary to be carried out as an effort to update scientific fields of study. Teachers feel directly related to this program, they can easily test independently related to the job being done. Submission of material from the observer, the core to the end raises a high curiosity towards the participants. Arduino used by UNO type with 328 series IC, easy and simple. Learning methods with training and referring to tutorials and simulations. This method is chosen because it has the advantage of training speed being stopped by the ability of the trainer and the accuracy of the method. In the initial conditions the participants were given a pre test about the C language and made a simple program using the Arduino IDE tool. The results of giving the material / refresh the programming basis are evaluated to determine the class or group. Introduction to Arduino Basics (6 hours), b). I / O Programming (10 hours), c). Display Access (6 hours), d). Serial Communication (6 hours), e). TCP / IP Socket (6 hours), and f). independent assignment (6 hours). Criteria for the success of this training activity, the teaching staff min 70% of the total training participants managed to develop an independent Arduino-based project. The training on the first day was carried out with the introduction of material on web surveillance followed by the Arduino base and ended with Web Surveillance material. Arduino-based Surveillance Web Training took place smoothly and has increased the insight and competence of teachers in terms of making and developing Arduino as part of the learning media of data communication and programming

Kata Kunci: *Arduino Uno, Training, Surveillance*