

ABSTRACT

DESIGN AND BUILDING OF AN E-VOTING WEBSITE FOR THE ELECTION OF THE CHAIRMAN OF THE ISLAMIC BOARDING SCHOOL USING THE SCRUM METHOD

(Case Study : Al-Amin Islamic Boarding School in Pabuwaran)

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Voting is a decision-making method that seeks the majority vote, used in various elections, including in Islamic boarding schools. The conventional voting system faces challenges such as low participation, schedule conflicts, and time-consuming manual vote counting. The proposed solution is the development of a web-based e-voting system using the Scrum methodology. Scrum was chosen for its high flexibility and adaptability. Functional testing was conducted using Black Box Testing, and usability was evaluated using the System Usability Scale (SUS). The testing results show that the e-voting website functions well and meets user expectations with an average SUS score of 83.78. The implementation of the Scrum methodology proved effective in ensuring all development stages proceeded iteratively and incrementally, involving good collaboration between the development team and stakeholders. After the design and development of the e-voting system for the election of the leader of Pondok Pesantren Al-Amin Pabuwaran, it can be concluded that the e-voting system significantly improves the efficiency of the election process. The time required for each student to vote and count the votes decreased by an average of 6.62 minutes, reflecting a time reduction of approximately 81.7%. The efficiency ratio indicates that the e-voting system is 5.41 times more efficient than the conventional system. These results demonstrate that the e-voting system not only reduces the time required but also enhances the overall efficiency of the election process.

Keywords : Blackbox Testing, E-voting, Metode SCRUM, System Usability Scale.

