

Vika Dwi Nur Romadhoni. 2025. *Pengembangan Sistem Electronic Voting (E-Voting) Berbasis Web untuk Pemilihan Ketua OSIS SMK Negeri 3 Bangkalan*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: Laili Cahyani, S.Kom., M.Kom

ABSTRAK

Perkembangan teknologi informasi telah mendorong digitalisasi dalam berbagai bidang, termasuk pendidikan. Namun, pemilihan ketua OSIS di SMK Negeri 3 Bangkalan masih dilakukan secara manual, yang dinilai kurang efisien, rawan kesalahan, serta menyulitkan distribusi informasi kandidat. Penelitian ini bertujuan untuk mengembangkan sistem *e-Voting* berbasis web yang layak digunakan dalam pemilihan ketua OSIS di SMK Negeri 3 Bangkalan. Penelitian menggunakan metode Research and Development (R&D) dengan model Waterfall, serta pengujian kelayakan sistem berdasarkan standar ISO 25010. Sistem ini dibangun menggunakan PHP, HTML, dan JavaScript dengan fitur utama seperti *Login* multi-user (admin, guru, siswa, kandidat), portofolio kandidat, dan perhitungan suara otomatis. Hasil validasi menunjukkan bahwa sistem memenuhi aspek functionality suitability dengan tingkat kelayakan $\geq 50\%$, aspek usability sebesar 85,6% (kategori sangat layak), dan performance efficiency dengan nilai performa 60%, struktur 79%, serta waktu muat halaman (LCP) selama 6,5 detik. Dengan demikian, sistem *e-Voting* yang dikembangkan dinyatakan layak digunakan dan mampu meningkatkan efisiensi serta transparansi dalam proses pemilihan ketua OSIS.

Kata kunci: *e-Voting*, ISO 25010, web

Vika Dwi Nur Romadhoni. 2025. *Development of Web-Based Electronic Voting (E-Voting) System for the Election of OSIS Chairman of SMK Negeri 3 Bangkalan*. Thesis, Informatics Education Study Program, Faculty of Teacher Training and Education, Trunojoyo University, Madura. Advisor: Laili Cahyani, S.Kom., M.Kom

ABSTRACT

The development of information technology has driven digitalization in various fields, including education. However, the election of the OSIS chairman at SMK Negeri 3 Bangkalan is still carried out manually, which is considered inefficient, prone to errors, and makes it difficult to distribute candidate information. This study aims to develop a web-based e-Voting system that is suitable for use in the election of the OSIS chairman at SMK Negeri 3 Bangkalan. The study uses the Research and Development (R&D) method with the Waterfall model, as well as system feasibility testing based on the ISO 25010 standard. This system is built using PHP, HTML, and JavaScript with main features such as multi-user Login (admin, teacher, student, candidate), candidate portfolio, and automatic vote counting. The validation results show that the system meets the functionality suitability aspect with a feasibility level of $\geq 50\%$, the usability aspect of 85.6% (very feasible category), and performance efficiency with a performance value of 60%, structure 79%, and page load time (LCP) for 6.5 seconds. Thus, the developed e-Voting system is declared suitable for use and is able to increase efficiency and transparency in the OSIS chairman election process.

Keywords: *e-Voting, ISO 25010, web*