

ABSTRACT

DEVELOPMENT OF A WEBSITE-BASED NEWS CONTENT MANAGEMENT SYSTEM WITH GEMINI AI INTEGRATION: CASE STUDY IN KEBONDALEM VILLAGE USING THE WATERFALL METHOD

Oleh
Muhammad Firdaus Zulkarnain
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The rapid development of information technology has had a significant impact on the dissemination of information, especially at the village government level. Kebondalem Village faces challenges in news content management, such as limited information technology infrastructure and low digital literacy of the community. This study aims to develop a website-based news content management system with Gemini AI technology integration to support content automation and personalization. The development method used is Waterfall with a V-Model approach, including the stages of needs analysis, system design, implementation, testing, and maintenance. The results of the study show that the system was successfully developed and functions according to specifications, facilitating the distribution of information quickly, structured, and easily accessible to the public. Gemini AI integration allows automatic news content creation based on points entered by the admin, and provides flexibility in revisions before publication. Based on the results of functional testing and acceptance testing, the system is considered easy to use, has a simple interface, and helps accelerate news writing. This system is also considered to be able to improve community digital literacy, encourage active participation of villagers, and strengthen the transparency of public services. This research contributes to the application of artificial intelligence in village information management and can be used as a model for other areas.

Keywords: *Artificial Intelligence (AI), Content Management System (CMS), Kebondalem Village, Gemini AI, V-Model, Village Website, Waterfall.*