

INTISARI

Penelitian yang berjudul "Sistem Pendukung Keputusan Penentuan Prioritas Pembangunan Infrastruktur Desa Menggunakan Metode SAW Berbasis Web di Desa Tawangsari" ini bertujuan merancang sistem yang memungkinkan masyarakat mengajukan usulan pembangunan infrastruktur secara mandiri serta membantu perangkat desa menentukan prioritas pembangunan secara lebih objektif dan transparan, berdasarkan empat kriteria, yaitu panjang/volume pekerjaan, anggaran, jumlah masyarakat terdampak, dan kesesuaian dengan RPJMDes, dengan menggunakan metode SAW dan dikembangkan melalui pendekatan RAD yang mengacu pada perancangan berbasis UML (*use case*, *activity*, *sequence diagram*, dan ERD). Hasil *black box testing* menunjukkan bahwa seluruh fungsi sistem berjalan sesuai kebutuhan yang dirancang, sedangkan UAT memperoleh rata-rata persentase sebesar 82% dengan kategori sangat sesuai, yang menunjukkan bahwa sistem mampu mendukung proses penentuan prioritas pembangunan infrastruktur desa secara lebih objektif, transparan, dan partisipatif di Desa Tawangsari.

Kata kunci: Sistem Pendukung Keputusan, Metode SAW, Prioritas Pembangunan Infrastruktur, RAD

ABSTRACT

This study, entitled "Decision Support System for Determining Village Infrastructure Development Priorities Using the Web-Based SAW Method in Tawangsari Village," aims to design a system that allows residents to independently submit infrastructure development proposals and helps village officials determine development priorities more objectively and transparently. The system is based on four criteria, namely the length/volume of work, budget, the number of affected residents, and conformity with the Village Medium-Term Development Plan (RPJMDes), and uses the Simple Additive Weighting (SAW) method. It was developed using the Rapid Application Development (RAD) approach, with a design based on UML (use case, activity, and sequence diagrams) and an ERD. The black box testing results show that all system functions work according to the designed requirements, while the User Acceptance Testing (UAT) obtained an average score of 82%, falling into the "highly suitable" category. This indicates that the system is able to support the process of determining village infrastructure development priorities in a more objective, transparent, and participatory manner in Tawangsari Village.

Keywords: Decision Support System, SAW Method, Infrastructure Development Priority, RAD