

ABSTRAK

Sadam Al Azari. 2026. Rancang bangun Sistem Pendukung Keputusan Pemilihan Program Studi bagi Siswa SMA Menggunakan Metode *Simple Additive Weighting*. Skripsi, Program Studi Teknik Informatika, Fakultas Teknik, Universitas PGRI Madiun. Pembimbing (I) Sri Anardani, S.Kom., M.T. (II) Yoga Prisma Yuda, S.Kom., M.Kom.

Pemilihan program studi merupakan keputusan penting bagi siswa kelas XII SMA saat akan melanjutkan pendidikan ke perguruan tinggi. Banyak siswa kesulitan menentukan program studi yang sesuai dengan minat, bakat, dan kemampuan akademiknya akibat kurangnya informasi dan panduan yang terstruktur. Kondisi serupa terjadi di SMA Negeri 4 Kota Madiun, di mana rekomendasi program studi oleh Guru Bimbingan dan Konseling (BK) masih dilakukan secara manual melalui konsultasi, sehingga membutuhkan waktu lama dan berpotensi kurang objektif. Penelitian ini bertujuan merancang Sistem Pendukung Keputusan (SPK) berbasis web menggunakan metode *Simple Additive Weighting* (SAW) dengan tiga kriteria, yaitu nilai akademik (40%), minat siswa (35%), dan bakat siswa (25%). Sistem dibangun menggunakan *Laravel*, *React.js*, dan *MySQL* dengan metode *Waterfall*, serta memiliki tiga level pengguna: Admin, Guru BK, dan Siswa. Hasil penelitian menunjukkan sistem mampu memberikan rekomendasi program studi secara objektif, terukur, dan meringankan tugas Guru BK.

Kata Kunci: *Sistem Pendukung Keputusan, Simple Additive Weighting, Pemilihan Program Studi, Laravel, React.js*

ABSTRACT

Sadam Al Azari. 2026. *Design and Development of a Decision Support System for Study Program Selection for High School Students Using the Simple Additive Weighting Method*. Undergraduate Thesis, Informatics Engineering Study Program, Faculty of Engineering, Universitas PGRI Madiun. Advisors (I) Sri Anardani, S.Kom., M.T. (II) Yoga Prisma Yuda, S.Kom., M.Kom.

Choosing a study program is an important decision for twelfth-grade high school students as they prepare to continue their education at the university level. Many students find it difficult to determine a study program that matches their interests, talents, and academic abilities due to a lack of structured information and guidance. A similar condition occurs at SMA Negeri 4 Kota Madiun, where study program recommendations from Guidance and Counseling Teachers are still carried out manually through consultation, which is time-consuming and potentially results in less objective recommendations. This study aims to design a web-based Decision Support System (DSS) using the Simple Additive Weighting (SAW) method with three criteria, namely academic scores (40%), student interest (35%), and student aptitude (25%). The system was built using Laravel, React.js, and MySQL with the Waterfall development method, and has three user levels: Admin, Guidance and Counseling Teacher, and Student. The results show that the system is able to provide study program recommendations objectively and measurably, while also easing the workload of Guidance and Counseling Teachers.

Keywords: Decision Support System, Simple Additive Weighting, Study Program Selection, Laravel, React.js