

INTISARI

Proses pendaftaran kursus di PT Akar Makna Teknologi masih memiliki kendala dalam pengelolaan pendaftaran peserta dan penentuan materi kursus yang sesuai dengan minat belajar peserta. Penelitian ini bertujuan untuk membangun sistem pendaftaran kursus berbasis web yang dilengkapi dengan fitur rekomendasi materi kursus menggunakan metode *Content-Based Filtering*. Metode penelitian yang digunakan adalah metode campuran kualitatif dan kuantitatif dengan pendekatan pengembangan sistem *Rapid Application Development (RAD)* yang meliputi tahap *Requirements Planning*, *User Design*, *Construction*, dan *Cutover*. Metode *Content-Based Filtering* diterapkan menggunakan pembobotan *Term Frequency-Inverse Document Frequency (TF-IDF)* dan perhitungan *Cosine Similarity* untuk menentukan tingkat kemiripan antara minat belajar peserta dengan materi kursus. Sistem yang dibangun menyediakan fitur registrasi, login, pengisian minat belajar, daftar kursus, rekomendasi materi kursus, dan pendaftaran kursus, serta fitur administrasi untuk mengelola data sistem. Evaluasi sistem dilakukan menggunakan *Black Box Testing* untuk menguji fungsionalitas sistem dan *System Usability Scale (SUS)* untuk mengukur tingkat *usability* sistem. Hasil penelitian berupa sistem pendaftaran kursus berbasis web yang dapat membantu proses pendaftaran peserta serta memberikan rekomendasi materi kursus berdasarkan minat belajar peserta.

Kata kunci: pendaftaran kursus, *Content-Based Filtering*, TF-IDF, *Cosine Similarity*, *System Usability Scale*

ABSTRACT

The course registration process at PT Akar Makna Teknologi previously relied on conventional methods, resulting in difficulties in managing participant registration and determining course materials that matched participants' learning interests. This study aims to develop a web-based course registration system equipped with a course material recommendation feature using the Content-Based Filtering method. The research uses a mixed-method approach, combining qualitative and quantitative methods. The system development process applies the Rapid Application Development (RAD) method, consisting of Requirements Planning, User Design, Construction, and Cutover. The Content-Based Filtering method is implemented using Term Frequency-Inverse Document Frequency (TF-IDF) weighting and Cosine Similarity to measure the similarity between participants' learning interests and course material data. The developed system provides features for participant registration, learning interest input, course information, course recommendations, and course registration, as well as administrative features for managing system data. System evaluation is conducted using Black Box Testing to test system functionality and System Usability Scale (SUS) to measure system usability. The results of this study are expected to provide a course registration system that facilitates the registration process and helps participants obtain course material recommendations based on their learning interests.

Keyword: course registration, Content-Based Filtering, TF-IDF, Cosine Similarity, System Usability Scale