

M. Khusnun Najib. 2026. *Pengembangan Sistem Informasi Bimbingan Konseling Penempatan Kerja Terintegrasi Artificial Intelligence di SMK Semen Gresik*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunodjoyo Madura. Pembimbing: Ana Tsalitsatun Ni'mah, S.Kom., M.Kom.

ABSTRAK

Tingginya tingkat pengangguran lulusan Sekolah Menengah Kejuruan (SMK) menunjukkan adanya kesenjangan antara kompetensi lulusan dengan kebutuhan dunia kerja. Kondisi tersebut menunjukkan pentingnya layanan bimbingan karier yang efektif di sekolah, namun di SMK Semen Gresik layanan bimbingan konseling (BK) karier masih dilakukan secara konvensional sehingga belum mampu memberikan rekomendasi karier yang personal dan terintegrasi. Penelitian ini bertujuan mengembangkan Sistem Informasi Bimbingan Konseling Penempatan Kerja terintegrasi *Artificial Intelligence* (AI) untuk mendukung layanan BK dan penempatan kerja siswa. Landasan teori yang digunakan meliputi konsep sistem informasi, bimbingan konseling, *Artificial Intelligence*, *System Development Life Cycle* (SDLC), model *Waterfall*, serta standar kualitas perangkat lunak ISO 25010. Penelitian menggunakan metode *Research and Development* (R&D) dengan pendekatan SDLC model *Waterfall* yang meliputi tahap *Requirement*, *Design*, *Implementation*, *Testing*, dan *Maintenance*. Pengumpulan data dilakukan melalui observasi, wawancara dengan guru BK, studi literatur, serta penyebaran angket kepada siswa. Hasil penelitian menghasilkan sistem berbasis web yang menyediakan fitur konseling *online* dan *Offline*, psikotes MBTI, informasi mitra industri dan lowongan kerja, serta rekomendasi penempatan kerja berbasis AI. Hasil pengujian menunjukkan nilai *functional suitability* sebesar 100%, *compatibility* sebesar 100%, *reliability* dengan tingkat kesalahan 0%, *performance efficiency* dengan waktu muat rata-rata 1,6 detik, serta *usability* sebesar 90,30%. Dengan demikian, sistem yang dikembangkan dinyatakan sangat layak digunakan untuk mendukung layanan BK dan penempatan kerja di SMK Semen Gresik.

Kata Kunci: Sistem Informasi, Bimbingan Konseling, Penempatan Kerja, *Artificial Intelligence*, SMK.

M. Khusnun Najib. 2026. *Development of an Artificial Intelligence-Integrated Guidance and Counseling Information System for Job Placement at SMK Semen Gresik*. Undergraduate Thesis, Informatics Education Study Program, Faculty of Teacher Training and Education, Universitas Trunojoyo Madura. Supervisor: Ana Tsalitsatun Ni'mah, S.Kom., M.Kom.

ABSTRACT

The high unemployment rate among graduates of Vocational High Schools (SMKs) indicates a gap between graduates' competencies and labor market demands. At SMK Semen Gresik, career guidance and counseling services are still conducted conventionally, limiting the provision of personalized and integrated career recommendations. This study aims to develop an Artificial Intelligence (AI)-integrated Guidance and Counseling Information System for Job Placement to support career counseling services and student job placement. The theoretical foundations of this research include information systems, guidance and counseling, Artificial Intelligence, the System Development Life Cycle (SDLC), the Waterfall development model, and the ISO 25010 software quality standard. This study employed a Research and Development (R&D) approach using the SDLC Waterfall model, consisting of Requirements analysis, Design, Implementation, Testing, and Maintenance stages. Data were collected through observations, interviews with guidance counselors, literature reviews, and questionnaires distributed to students. The results produced a web-based system featuring online and Offline counseling services, MBTI psychological Testing, industry partner and job vacancy information, and AI-based job placement recommendations. System Testing showed a functional suitability score of 100%, compatibility of 100%, reliability with a 0% error rate, performance efficiency with an average loading time of 1.6 seconds, and usability of 90.30%. Therefore, the developed system is considered highly feasible for supporting guidance and counseling services as well as job placement activities at SMK Semen Gresik.

Keywords: *Information System, Guidance and Counseling, Job Placement, Artificial Intelligence, Vocational High School.*