

ABSTRAK

PT Pamapersada Nusantara Distrik MTBU menerapkan sistem *Fit To Work* (FTW) untuk memastikan kesiapan kerja operator berdasarkan data jam tidur. Namun, kendala pada aplikasi 1PAMA dan perangkat smartwatch menyebabkan data operator tidak tercatat dengan baik sehingga dapat memengaruhi penentuan status FTW. Penelitian ini bertujuan membangun Sistem *Contingency Plan Fit To Work* (FTW) berbasis website yang terintegrasi dengan WhatsApp sebagai alternatif ketika sistem utama mengalami gangguan. Metode pengembangan yang digunakan adalah Rapid Application Development (RAD) yang meliputi pemodelan bisnis, pemodelan data, pemodelan proses, pembuatan aplikasi, dan pengujian sistem. Sistem yang dibangun memungkinkan operator menginput data jam tidur melalui WhatsApp, sedangkan admin Produksi, SHE, dan IT dapat melakukan monitoring, pengelolaan data, validasi kendala, serta rekapitulasi laporan melalui website. Hasil penelitian menunjukkan bahwa sistem berhasil diimplementasikan dan seluruh fitur berfungsi sesuai kebutuhan berdasarkan pengujian *Black Box*. Sistem ini mampu mendukung proses pencatatan data jam tidur, pelaporan kendala FTW, serta monitoring status operator secara lebih efektif. Dengan demikian, sistem dapat menjadi solusi *Contingency Plan* yang membantu menjaga kelancaran proses pengambilan keputusan terkait kesiapan kerja operator.

Kata Kunci: *Fit To Work* (FTW), *Contingency Plan*, Website, WhatsApp, RAD.

ABSTRACT

PT Pamapersada Nusantara MTBU District implements a Fit To Work (FTW) program to ensure operators are physically fit and ready to work based on their sleep duration data. However, technical issues with the 1PAMA application and smartwatch devices often cause sleep data to be unavailable, which may affect the assessment of operators' work readiness. Therefore, this study aims to design and develop a web-based Fit To Work (FTW) Contingency Plan System integrated with WhatsApp to support the FTW process when the primary system experiences disruptions. The system was developed using the Rapid Application Development (RAD) method, which includes business modeling, data modeling, process modeling, application development, and system testing. Through the developed system, operators can submit sleep duration data via a WhatsApp chatbot, while Production, SHE, and IT administrators can monitor, manage, validate issues, and generate reports through a web-based dashboard. The results indicate that the system was successfully implemented and all system features functioned properly based on Black Box testing. The system effectively supports sleep data collection, FTW issue reporting, and operator fatigue monitoring. Thus, the proposed system can serve as an effective contingency plan solution that helps maintain the continuity and accuracy of decision-making related to operators' work readiness.

Keywords: Fit To Work (FTW), Contingency Plan, Website, WhatsApp Integration, Rapid Application Development (RAD), Fatigue Monitoring.