

Analisa study ergonomi pintu darurat pada kendaraan tempur pengangkut personil APC (Armoured Personal Carrier) = analysis on ergonomics studies of emergency door of armored personnel carrier combat vehicle armoured personnel carrier

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Abstrak

**ABSTRAK
**Penelitian ini mengkaji aspek ergonomis pada desain pintu darurat penumpang kendaraan tempur Armoured Personnel Carrier (APC) dalam Virtual Environment. Tujuannya adalah mengevaluasi desain aktual pintu darurat penumpang kendaraan tempur dan menentukan konfigurasi paling ergonomis ditinjau dari tinggi dan lebar pintu. Dihasilkan 7 buah konfigurasi yang akan dianalisis. Pengambilan data gerakan dilakukan dengan menggunakan Vicon System dan dianalisis dengan menggunakan software Jack 6.2.1. Pendekatan yang digunakan adalah Posture Evaluation Index (PEI) yang mengintegrasikan analisis dari tiga metode analisis: Low Back Analysis, Ovako Working Posture Analysis, dan Rapid Upper Limb Assessment. Hasil penelitian ini yaitu adanya perubahan tinggi pintu atas dan bawah sejauh 5cm dan lebar kanan dan kiri sejauh 5cm.

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**Abstract
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This research studies the ergonomic aspects of the armored personnel vehicle emergency door design in a virtual environment. The purpose of this research was to evaluate the design of actual personnel emergency door of a combat vehicle and to determine the most ergonomic configuration using door height and width as primary consideration. From the research, seven configurations were made and analyzed. Motion capturing of the model was taken using Vicon System and analyzed using jack 6.2.1 software. Posture Evaluation Index was used to integrate the analysis from three methods: Low Back Analysis, Ovako Working Posture Analysis System, and Rapid Upper Limb Analysis. The result of this research suggested that minor modification is necessary from original design. Additional 5 cm was added to the width design, 5 cm on the left side and another 5 cm on the right side of the door design