

ABSTRAK

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Program Studi : Magister Teknik Industri
Judul Tesis : Rambu Keselamatan Dan Beban Kerja Sopir
Dump Truck Dalam Upaya Optimasi Sistim Kerja
Di Industri Biji Nikel

Fokus tesis ini bagaimana rambu keselamatan dapat mempengaruhi beban kerja sopir, yang pada akhirnya berimplikasi terhadap keselamatan kerja. Latar belakang penelitian ini berangkat dari tingginya risiko kecelakaan kerja dan beban kerja mental yang dialami sopir dump truck akibat lingkungan kerja yang dinamis serta komunikasi visual yang sangat kurang. Metodologi yang digunakan adalah NASA Task Load Index (NASA-TLX) digunakan untuk mengukur enam dimensi beban kerja subjektif (mental demand, physical demand, temporal demand, performance, effort, frustration). Research gap masih terbatasnya objek penelitian empiris yang menghubungkan efektivitas rambu keselamatan dengan beban kerja sopir di pertambangan. Secara ilmiah, penelitian ini berkontribusi dalam pengembangan teori ilmu ergonomi kognitif dengan memformulasikan hubungan empiris antara desain rambu keselamatan dan beban kerja sopir di lingkungan pertambangan.

Kata kunci:

Rambu keselamatan kerja, beban kerja mental, NASA-TLX

ABSTRACT

Name : Fadhly
Study Program : Master of Industrial Engineering
Title : Safety Signs and Driver Workload
Dump Trucks in an Effort to Optimize Work Systems
in the Nickel Ore Industry

This thesis focuses on how safety signs can influence drivers' mental workload, which ultimately has implications for occupational safety. The background to this research stems from the high risk of workplace accidents and workload experienced by dump truck drivers due to a dynamic work environment and suboptimal visual communication. The methodology used is the NASA Task Load Index (NASA-TLX), which measures six dimensions of subjective workload (mental demand, physical demand, temporal demand, performance, effort, and frustration). The research gap remains limited in empirical research linking the effectiveness of safety signs to driver workload on mining haul roads. Scientifically, this research contributes to the development of cognitive ergonomics theory by formulating an empirical relationship between safety sign design and driver workload in mining environments.

Keywords:

Safety signs, mental workload, NASA-TLX