

## Evaluation of machinist's fatigue at pt. kereta api persero daop ii Bandung

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### Abstrak

Machinists have a big responsibility in controlling trains and maintaining the safety of trips. When a machinist has an irregular work schedule, monotonous and long schedules, he may experience fatigue while on duty. Fatigue can cause a decrease in performance and lead the machinist to make mistakes that can later be the cause of railway accidents. Fatigue assessments, then, become an important program that can be used by management to improve railway safety. In this study, a fatigue evaluation was conducted among 30 machinists working at the Indonesian Railway Company (PT. Kereta Api Indonesia or PT. KAI). The evaluation consists of assessing the quality of sleep with The Pittsburgh Sleep Quality Index (PSQI), the measurement of subjective sleepiness with Karolinska Sleepiness Scale (KSS), the measurement of secondary work performance with Psychomotor Vigilance Test (PVT), and heart rate measurements employing a heart rate monitor (Beurer PM-18). Results of this study showed that most of the machinists experienced sleep quality problems. Also, the sleepiness level of the machinists continued to increase at work and the reaction time was worse at the end of his shift, although levels of physical fatigue were not substantial. Suggestions were proposed to the management, including new work schedules using shift rotations in order to reduce fatigue.