

ABSTRACT

PT. Maya Gapura Intan (MGI) is one of the transportation services companies that has been operating since 2003. Bandung Sukabumi route is one of the most popular routes compared to other existing routes. The weakness contained in the bus is the longer travel time compared to other public transportation. A long travel time can cause aches in the driver's body due to a long driving activity. The driving position factor that is less ergonomic is strongly influenced by the design of the chair, because the chair design is related to the distance of the steering wheel and the gas pedal, therefore it is necessary to improve the chair design that can make the driver aches in the muscles.

*Based on the results of the Ministry of Health's study in Indonesia in 2005, it shows that around 40.5% of the diseases suffered by bus drivers are related to driving activities, according to a study conducted on 9,482 workers from 12 districts or cities in Indonesia, generally in the form of musculoskeletal disease 16%, cardiovascular 8%, nerve disorders 6%, respiratory disorders 3%, and ENT disorders 1.5%. Muscle and sore disease are one of the **musculoskeletal disorders (MSDS)** diseases. MSDS is an accumulation of pain in the context of work that worsens the condition of the worker's body.*

*The author observes and interviews the bus driver so that the writer can examine further to get complaints data and needs for bus drivers. After the observation data obtained by the researcher selecting the problem-solving method using the **reverse engineering** method with the aim of developing existing **bus driver seats** with adjusting the needs and problems experienced to each component of existing bus driver seats.*

The author hopes, that with this bus driver seat design which engineered by reverse engineering could increase driver comfort and reduce muscle strain.

*Keywords - **Musculoskeletal disorders, Reverse Engineering, bus driver seats***