

ABSTRACT

In the modern era, ease of access to transportation has become an essential need for society. Motorcycles, as one of the most popular two-wheeled vehicles, have become the primary choice for many individuals in Indonesia. According to the Central Bureau of Statistics, there were 13,361,669 motorcycles in West Java alone in 2022. However, the increasing use of motorcycles is directly proportional to the rising risk of accidents. According to Databoks in 2019, there were 116,411 road accidents, with most victims suffering minor injuries or physical trauma.

Motorcycle riders are vulnerable to various types of injuries, ranging from minor cuts and bruises to severe injuries like broken bones or even fatal trauma. This vulnerability is mainly due to the exposed nature of a rider's body. Therefore, Safety riding becomes a crucial aspect in reducing the risk of accidents. One key element of Safety riding is the use of Jackets, which serve not only as a fashion statement but also as physical protection. Research has shown that certain body parts, such as the head, shoulders, spine, and elbows, are particularly susceptible to injury, highlighting the need for Jackets equipped with protective features.

Previous research has found that a lack of awareness among riders about the importance of road safety contributes significantly to the high number of traffic violations and accidents. Ayunda Fadila's (2017) study indicates that education and awareness regarding the use of safety equipment, including protective Jackets, are still low. Therefore, it is crucial to enhance public understanding of the importance of wearing Jackets with protectors as part of Safety riding.

In this research, the author chose the topic "Design of Protectors for Motorcycle Riding Jackets to Reduce Physical Injuries in Accidents." The main focus of this study is to design a Jacket with protectors made from EVA Foam, known for its strength, flexibility, and comfort. By placing protectors in joint areas such as the shoulders and elbows, along with additional protection for the back, it is expected to reduce the risk of injury for motorcycle riders. This research aims to explore and develop knowledge in product design, particularly in the context of Lifestye Fashion that also considers road safety aspects.

Keywords: *Safety riding, protective Jacket, EVA Foam, road safety, physical injury, product design.*