ABSTRACT

The development of the automotive industry in Indonesia, especially in the development of electric vehicles, has driven the need for environmentally friendly and efficient transportation solutions in urban areas. The millennial generation and show an interest in vehicles that are not only functional but also stylish. This research aims to design an electric microcar body with a futuristic model that adapts to modern urban needs. The methodology used is a descriptive qualitative approach with case studies on the Wuling Air EV, as well as data collection techniques in the form of observations, interviews, questionnaires, and documentation. Data analysis was carried out using the SCAMPER method to produce design innovations that combine aesthetic, aerodynamics, ergonomics, and sustainability aspects. The result of this research is in the form of a futuristic and visually appealing microcar body design concept, but still considers the functionality and efficiency of space for users in dense urban areas such as Bandung. The design is focused on the exterior by considering limitations such as structural strength, material selection, and funding limitations. The product is designed to be an alternative to electric vehicles that are relevant to the lifestyle of the younger generation, as well as contribute to reducing carbon emissions and increasing mobility in urban environments. The result of this study is in the form of the final design of the electric microcar body with a futuristic model realized in the form of 1:1 scale modeling using simple materials. The design process takes into account space efficiency, structural strength and ease of mobility. Validation was carried out through evaluation by millennial respondents. The validation results showed that 80% of respondents rated the visual design as very attractive and in line with the urban lifestyle, and stated that the design reflected the expected futuristic impression. Thus, this design is considered to have succeeded in answering the aesthetic and functional needs of the millennial generation in the urban of Bandung.

Keywords: Microcar, futuristic design, electric vehicle, millennial, urban mobility.