

## ABSTRACT

*The development of the electric vehicle industry in Indonesia continues to experience development after the issuance of Presidential Decree Number 55 of 2019 concerning the Acceleration of the Battery-Based Electric Vehicle Program, also driven by public awareness of transportation pollution and the green environment. To support the program, the government is preparing the production of additional infrastructure needed, namely Electric Vehicle Charging Station (EVCS) or commonly referred to as Public Electric Vehicle Charging Station (SPKLU). One important aspect of EVCS is the physical protection of the vehicle and user during the charging process, i.e. canopy/shelter. Therefore, this study aims to design an innovative EVCS facility using Fiber Reinforced Polymer (FRP) composite material. The use of FRP material was chosen because of its lightweight, corrosion-resistant, and high strength. This design process is carried out by integrating qualitative approaches that allow for a deeper understanding of users' perceptions regarding EVCS design and their preferences for FRP materials. Qualitative data were collected through field observations, interviews of design experts, and materials experts. Qualitative analysis of responses from experts and users to the design helps identify strengths, weaknesses, and potential workable improvements. The result of this research is a deeper understanding of how FRP materials can be integrated into EVCS canopy design. These qualitative findings inform better design decisions in terms of material use, canopy shape, as well as safety features desired by users.*

**Keywords :** *Electric Vehicle, Charging Station, Fiber Reinforced Polymer*