ABSTRACT

Indonesia has set a Net Zero Emission (NZE) target by 2060 as part of efforts to overcome the impacts of global warming. One of the strategies taken by the government is to reduce the use of fossil fuel-based motor vehicles and promote the switch to electricity-based vehicles, such as electric cars, which have advantages including not producing exhaust gases that contribute to global warming. Law number 11 of 2019 concerning the National Science and Technology System, Indonesian researchers and engineers are encouraged to make technological inventions, especially in the field of electric vehicles. However, the main challenge is the lack of human resources who have sufficient skills and knowledge.

As a solution, this research created the Electric Vehicle (EV) CAN bus Simulator as an educational tool in SMK/PT. This simulator allows the development of skills and knowledge about the main component systems in electric cars. The main focus of this simulator is its ability to communicate via CAN bus and display data and visual information from the components that will be used. This indicates that these components can communicate effectively via CAN bus.

Keywords: Electric Vehicle, Controller Area Network Bus, Simulator