

THE DIAGNOSIS OF EXPERT SYSTEM ON MOTORCYCLE ENGINE DAMAGE USING WEB-BASED FORWARD CHAINING METHOD

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Motorcycles are one of transportation that the most widely used by some people to carry out daily activities. Motorcycles can experience unexpected damage due to their use. Therefore, the idea emerged to create a web-based expert system to diagnose motorcycle engine damage to help users who experience the damage. The expert system is created using the ADDIE method and designed using the Forward Chaining method. The Forward Chaining method is implemented as the tracking process of the system that has been independently tested and tested by users. The application of the expert system is divided into two, namely admin and user. The admin is the expert data manager in the application system, and the user is the motorcycle user who experienced engine damage. During the user test, the percentage as the result of system diagnosis and motorcycle repair shop diagnosis is found, 90.09%. Based on the result of this study, it can be concluded that the expert system is feasible to use and can be used as a tool to help people especially motorcycle users in diagnosing motorcycle engine damage. Suggestions to develop this expert system can be done by creating a system based on Android and iOS.

Keywords: *expert system, forward chaining, motorcycle engine*