

Abstract

Abstract— Air Conditioner (AC) is a system or machine designed to stabilize the air and air temperatures that cover a certain area. This study discusses how to find ways to improve Android-based system applications for air protection in Air Conditioning (AC), this method is used as a support in making decisions on damage to Air Conditioner (AC) on the main components, supporting components, electrical components and cooling materials (Refrigerant) in Air Conditioner (AC). To design the application, an expert system is needed. Expert system itself is a computer system that emulates the ability of human expertise (Sri Hartati and Sari Iswanti, 2008: 152). The purpose of this study is to be able to produce an expert system application that can help technicians to improve damage to the Air Conditioner (AC) so that users of Air Conditioning (AC) can also understand the damage that occurs in Air Conditioners (AC). The research inference method used in this expert system uses the Android-based Forward Chaining method. Forward Chaining is a strategy in finding data by collecting data or facts which will then be concluded to find the right solution or event to solve a problem. The shell expert system used is McGoo which will then be adopted into the Thunkable Android application. With the existence of this expert system aims to identify damage to the Air Conditioner (AC) and used as material in making decisions to help the users, especially the technicians in diagnosing the damage that is in the Air Conditioner (AC). The results of this study indicate that the existence of a hierarchy of decisions to detect damage to the Air Conditioner (AC) can be applied in the society and from the results of application testing it can be concluded that the application of this expert system will be a tool for users of Air Conditioners and technicians to diagnose damage to Air Conditioner (AC).