A computer-based intelligent system for fault diagnosis of an aircraft engine

ABSTRACT

In this paper, an intelligent knowledge-based system (KBS) capable of assisting aircraft mechanics and engineers to deal with fault diagnosis of the turbo-prop aircraft engine is presented. The KBS intelligent jet engine trouble-shooting system (IJETSS) employs expert knowledge to act in a way similar to that of a human expert in an aircraft maintenance field by using if-then rule-based system. The major aim of the KBS of IJETSS is to generate rapid and precise engine fault diagnosis that can simulate the work of experienced aircraft maintenance mechanics and engineers. The developed system can also be useful for the inexperienced aircraft mechanics and engineers and can be used for training module for them.