

## Abstract

The role of an expert in a certain domain is very important because an expert has broad knowledge, opinion, experience, and certain method in solving the problems arise in the domain in which he gets of best of it. However, the expense for using the expert's expertise is not just a little. Besides, an expert is also like a common human who can forget and cannot be used anytime. Therefore, it is expected that the set up of an expert system can help people when facing a situation when an expert is difficult to get.

The domain of room's color setter arises because people tend to not to pay attention to the room's color around them, whereas that aspect can influence the character and mood of the room occupant. Besides, an expert for determining the room's color is difficult enough to get. The method for determining the room's color used in this system is classification.

This expert system is set up by using fuzzy rule based to cope with the data ambiguity and vague data. The inference process used is Mamdani method to get the suggestion and solution for the room's color that is compatible most with the room's condition.

**Keywords:** expert system, fuzzy rule based, set room color, classification, Mamdani method.