

ANALYSIS LIGHT CONTROL SMART ROOM WITH FUZZY MAMDANI

ABSTRACT

The use of electrical energy is one of the energies that is used the most in every activity. Therefore, it is necessary to save energy in the lighting system. Smart Building can be defined as a smart one if the building has a system which can adapt the needs of its users in order to maximize the users' convenience for energy saving and costs efficiency. In general, the on-off principle is used in lighting settings. Lighting settings work based on conditions in the dark-bright room regardless of the light intensity in the room or from outside. This causes the use of energy is not utilized properly. In this study, a brightness control system for indoor lights was made using Fuzzy Mamdani in order to adjust the lighting as desired. To read the brightness of the light, the system uses an LDR light sensor or the presence of a person using a sensor. For this research the control system uses a microcontroller Arduino Uno.

Keyword: Arduino Uno, Fuzzy Mamdani, Intensitas Cahaya, LDR, Smart Building