

## ABSTRACT

*The main ingredient in making tempeh besides soybeans is tempeh yeast. The role of tempeh yeast is very important because the main factor that supports the success of making tempeh is the optimal yeast content of the tempeh. Besides, the levels of tempeh yeast can also affect the length of the fermentation process. If the tempeh yeast content and fermentation time can be optimal then the fermentation process can run well, so that it will produce tempeh that is of good quality and suitable for consumption. Based on these problems, the author designed an application system that was built using the Matlab software which combines the fuzzy logic program and the Matlab GUI (Graphical User Interface) as the display application.*

Keywords : Soybeans, Tempeh Yeast, Fuzzy Mamdani, Matlab.