ABSTRACT

The Teacher certification is a point of assessment of teachers consists of written test, practice test, workshop's yielding, participation in learning theory, and a collegue friend assessment. On the assessment of teacher certification, it is very difficult to determine graduation of participants teacher certification. The unfair assessment is happens regulary. Therefor, fuzzy method is used as an other alternative in this assessment.

Fuzzy is very good for solving these problems that have partial truth if there is knowledge that has been made by experts as information for establishing a system of fuzzy. if such information is not known, it will be difficult to find a solution of a fuzzy system. This problem can be solved by optimization of fuzzy. One of them using Evolutionary Algorithms (EAs). In this final project EAs are used to optimize fuzzy algorithm is Genetic Algorithm (GA). GA uses a series of evolutionary processes to find a solution. GA is used to find the optimal parameters which are tested to fuzzy system to find the result of graduation. This process is implemented to determine the assessment in teacher certification using dummy data. All of process in this system is called hybrid fuzzy.

Based on fuzzy hybrid test, obtained the best solution from population size-200, probability of crossover 0.9, probability of mutation 0.1, and the number of individuals evaluated the training as much as 1000 with accuracy training 64.7% and accuracy testing 84%. Based on the results of learning hybrid fuzzy using confusion matrix calculation precission obtained 76.82%, and 97.19% recall. Based on the results of the comparison with the weighting method with fuzzy hybrid learning process, there were 73 participants who passed that in luluskan with fuzzy hybrid learning process..

Key words: teacher sertification, fuzzy, genetic algorithm, evolutionary algorithms, fuzzy system