

## **ABSTRACT**

*The teachers certification is one of the Indonesian Governments program to grant certificates of educators to the teachers. To get the certificate, the teachers must go through a series of stages of tests, including written test, practical test, workshops yielding, participation in learning theory and practice, and a colleagues assessment was taken into a part of considerations. In the assessment of teacher certification is not easy to determine the graduation of participants. The unfair assessment is happens regularly. 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. However, 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 Differential Evolution (DE). DE algorithm uses a series of evolutionary processes to find a solution. DE algorithm 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 50, maximum of generation 20, the value of  $F$  0.8, the value of  $\lambda$  0.8, with 93.6% accuracy training, 91.2% accuracy testing, 85% precission, and 100% recall, there are shown hybrid fuzzy graduating 44 participants.*

*Keywords : teacher certification, evolutionary algorithms, differential evolution, fuzzy system*