

## **Abstract**

*Decision tree is one of classification method in data mining. Decision tree collects data into certain class that has been defined before. SLIQ is one decision tree method that use Gini Index and can use to classify categorical and numerical data. But SLIQ have limitation to classify continuous data, because split point in SLIQ use discrete value so not fit with continuous data characterization. It can make classification data that produce with SLIQ is rough, rigid and less appropriate with given data characterization. Because of that, give the Fuzzy SLIQ Decision Tree algorithm with add fuzzy in split point calculation SLIQ algorithm. With add fuzzy in the algorithm, split point decision will base with membership value the data to split point. With this method, continuous data doesn't classify use discrete split point but use calculation membership value split points that describe in tree model that has been produced in training process. From the test result we can see that Fuzzy SLIQ Decision Tree Algorithm generally give better accuracy than SLIQ Algorithm and give the time model building process faster than SLIQ algorithm.*

*Keywords : Data Mining, Classification, Decision Tree, Fuzzy SLIQ Decision Tree, SLIQ*