

## **Abstract**

Identify design pattern is a process performed when designing software, especially state pattern, its identification of needs seen in the source code. It is because the pattern of state pattern's code smell can be detected only from its source code. Finding a code pattern in a source code is not easy and fast, beside we need to understand the source code, sometime the human error effect like skipping a line of code when we read the source code, often happen. That's why a software to find its pattern automatically is needed.

In this Final Project, a turing machine has been implemented to solve the problem of finding pattern of state pattern's code smell's. Turing machine was chosen for its ability to strongly support the process of finding those patterns in a source code.

The results of the identification accuracy value analysis software that is seen on the results of the identification of OO experts proved that a Turing machine can only read a syntactic patterns, but not semantic.

**Keywords : state pattern, identification, code smell, turing machine, source code, accuration**