

## **ABSTRACT**

*Anex game is a platformer genre game where in this game there are Non-Player Character (NPC) enemies that can move automatically because they are inserted by artificial intelligence. The purpose of this study is to apply artificial intelligence to NPCs and increase the difficulty of NPCs at each stage. The NPCs in the Anex game consist of hunters, animals and plants. In this final project, it is focused on implementing Plant NPC using the intelligent agent method.*

*Plant NPCs will perform their actions based on sensors. The actions taken generally consist of two, namely attack and idle. The attack action will perform its behavior if the player is in the range of the NPC while the idle action will perform its behavior if the player is outside the range of the NPC. This sensor depends on a predetermined distance.*

*The final result of the test was carried out by means of a questionnaire consisting of 19 respondents and it was proven that the NPCs faced by players experienced difficulties at each stage. In the tutorial stage testing, it was classified as very easy with an overall result of 68.4%. Stage 1 stated easy with a result of 65.8% and stage 2 stated normal with an overall result of 60.6%. In addition, the Anex game is declared playable to play, this can be seen in technical testing which states that the average FPS is 52 FPS which is still stable to play.*

**Keywords:** *difficulty, Game, intelligent agent, plant NPC, playable*