ABSTRACT

Maze Chase Game is a game where the player was chased by the Non-Player Character (NPC). In this game, the NPC ran automatically using artificial intelligence. This Maze Chase game has four NPC with different characteristics. Because of this difference, the NPCs needs to be communicating with each other in order to catch the player. For this we use Multi-Agent system, a part of artificial intelligence which were used by the NPCs to communicate with each other using the described parameters. The parameters used were the amount of coins, zones, supercoins, and distance from the center of the zone. From those parameters, we implement the Naive Bayes algorithm to calculate the probability of NPC behaviors. The NPCs will then chase the players according to the zones. From our testing, we got the average value of NPC accuracy around 93.3%, and average presicion value about 87.85%. Meanwhile from our MAPE calculation, the mean average error between the actual and predicted target zone for NPC were about 0.405%. And the mean average error between the NPC and player zone were about 0.406%.

Keywords : Maze Chase, Non-Player Character (NPC), Naive Bayes Algorithm, Artificial Intelligence.