# *ABSTRACT*

*Game is a game that has a storyline, rules, and characters in it. In the game there must be characters that are played by players and NPCs (Non-Player Characters) as a complement in a game. The purpose of having NPCs is to make a game feel more real and more interactive, especially for offline or single player games.*

*In racing games for example, NPCs will be updated if there is additional content in the game, such as a new racing track. To get more variety, development is carried out by embedding an artificial intelligence-based system for NPC (Non-Player Character) using the A* algorithm method. This method makes the NPC more varied because every node that is changed, the route determination made by the NPC must change.*

*The result of the implementation of the A* algorithm that has been applied allows the NPC to determine the closest distance through the calculation of the target and the closest distance to each checkpoint in front of it. The application of the A* algorithm adds variety to the game, because every change in the checkpoint on the trajectory will change the route traversed by the NPC.*



***Keywords:*** *NPC (Non-Player Character), Artificial Intelligence, Algorithm A*, Checkpoint, Game.*