# ABSTRACT

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**MEANS-END ANALYSIS DECISION MAKING MODEL IN SANTORINI BOARD GAME TESIS HURUF BESAR BOLD**
(XII+ 96 pages; 5 figures; 1 table, 27 attachment)

This research targets the overlooked complexity of the god system in the board game Santorini, identifying a gap in how artificial intelligence (AI) adapts to variable player powers within strategic games. Existing AI applications in board games have not fully capitalized on the strategic depth introduced by such systems, limiting our understanding and the potential for AI to navigate and exploit these dynamics for improved gameplay strategies.

The study utilizes Means-End Analysis and heuristic values to develop an AI model capable of navigating Santorini's god system. By constructing a detailed game state design and employing a game engine, the research facilitates the strategic application of AI in assessing and making decisions based on the game's variable player powers. This methodological framework supports the simulation of various gameplay scenarios, enabling the AI to identify and execute strategically advantageous moves by applying these specific analytical techniques.

Results demonstrate that employing heuristic values significantly enhances the AI's ability to leverage the god system, particularly highlighting the strategic benefits of Apollo powers. The heuristic approach prioritizes the utilization of god powers effectively, showcasing the model's potential to adapt to and capitalize on the game's inherent complexities. This finding underscores the importance of refining heuristic values and suggests avenues for future research to extend AI applications in board games, focusing on dynamic and strategic decision-making.

Keywords: Artificial Intelligence, Means-End Analysis,Heuristic Functions, Santorini Board Game, Game Theory, Computational Intelligence, Strategy Games, Variable Player Powers.

References: 18 (2006 – 2024)