

Universiti Teknologi MARA

**Sudoku Generator Based on Hybrid
Algorithm**

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DECLARATION

I certify that this thesis and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the disciplines.

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ABSTRACT

Sudoku Generator is a prototype that automatically generates and solves the Sudoku. Before this, Sudoku generator has been develop using backtracking algorithm only, but this research use two algorithm which is recursive and backtracking algorithm that called as hybrid algorithm. The objectives this research are to investigate hybrid algorithm in game generator, to develop Sudoku generator based on hybrid algorithm and lastly to test and evaluate the Sudoku generator using time comparison. This prototype are developed using research framework that consists of six major approaches. There are information gathering, analysis, design interface, prototype development, testing and evaluation and last but not least documentation. The hybrid algorithm is applied in prototype development where in process on solving Sudoku. After testing and evaluation the prototype, the result shows that the Sudoku generator based on hybrid algorithm takes more times on solving the Sudoku. As conclusion, hybrid algorithm is not suitable for Sudoku generator.

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