

**SHORTCOMINGS ANALYSIS OF ITERATIVE METHODS TO
SOLVE ILL-CONDITION SYSTEMS OF LINEAR EQUATIONS**

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DECLARATION BY CANDIDATE

We certify this report to which it refers is the product of our own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with standard referring practices of the discipline.



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ABSTRACT

An iterative method is a mathematical procedure in computational mathematics. It had been used to generate a sequence of improving approximation solutions for problems by using an initial guess where n th approximation is derived from the previous one. In this research, three iterative method which are the Jacobi method, the Gauss-Seidel method and the Successive Over-Relaxation had been used. The Jacobi method, the Gauss-Seidel method and the Successive Over-Relaxation will be used to solve the ill-conditioned linear systems. This study is conducted to assess the performance of these iterative methods by means of numerical studies. This is to provide satisfactory explanation on the convergence problems and also an insight on how these iterative methods work.

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