

**ON SOLVING UNCONSTRAINED OPTIMIZATION PROBLEM
USING THREE TERM CONJUGATE GRADIENT METHOD**

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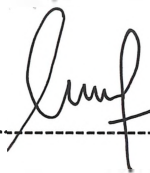
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DECLARATION BY CANDIDATE

I hereby declare that the thesis is based on my original work, except for quotations and citations which have been duly acknowledge. I also declare that it has not been previously and concurrently submitted for any other degree at UiTM or other institutions.

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



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ABSTRACT

Conjugate Gradient method is commonly use to solve large scale unconstrained optimization problem. This is because they do not need the storage of matrices. Specifically, this project is to investigate more about three-term conjugate gradient methods. Inexact line search which is strong wolfe and modified parameter was use in this project. The methods that had been use in this project are Liu (2018), Norddin et. al.(2018), and modified Three-term Hestenes-Steifel (2007).

These methods have been tested using several optimization test functions which are Extended Rosenbrock, Himmeblau function, Beale and White & Holst function . The result is analysed based on the number of iteration and CPU time. This expectation result from this research is to identify the best method for strong wolfe to solve large scale unconstrained optimization problems.

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