THREE TERM CONJUGATE GRADIENT FOR SOLVING UNCONSTRAINED OPTIMIZATION

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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 acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Teknologi MARA or other institutions.

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ABSTRACT

Conjugate Gradient (CG) method is one of the popular methods that solve the large-scale unconstrained optimization problems, because they do not need the storage of matrices. In this paper, we are particularly interested in three-term conjugate gradient methods. We are using only classical parameter on this paper. In this paper, we are using exact line search. These methods have been tested using only the selected optimization test function with different initial point from the nearest to the solution point to the furthest from the solution point. The result is analysed based on the number of the iteration and CPU time. Based on the result, Narushima et al. is the best method of all in term of both number of iteration and CPU times.

Keywords: Conjugate Gradient (CG) Methods, Exact Line Searches, Global Convergence.

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