COMPARATIVE STUDY OF SEVERAL CLASSICAL AND MODIFIED CONJUGATE GRADIENT USING INEXACT LINE SEARCH

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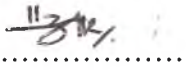
DECLARATION

I certify 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 acknowledged in accordance with standard referring practices of the discipline.



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ABSTRACT

Conjugate gradient (CG) method is one of the method in finding minimization or maximization of objective function to solve unconstrained optimization problems. Many studies have been conducted recently to improve this method but some of the modified CG seem to be more difficult and complicated than the older ones previously suggested. Therefore, in this paper, some simple classical and modified CG method will be compared based on number of iterations and CPU time to find the best solution point. The global convergence result is solved using strong Wolfe-Powell (SWP) inexact line search. Four difference initial point and five test functions is being used to test the efficiency of the CG coefficient.