A New Algorithm for Computing Real Root of Non-Linear Transcendental Functions

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Abstract

Most of the real life-problems are non-linear in nature therefore it is the challenging task for the mathematician and engineer to find the exact solution of such problems In this reference, a number of methods have been proposed/implemented in the last two decades. Analytical solution of such non-linear equations is very difficult therefore only numerical method based iterative techniques is the way to find approximate solution. The present paper describes a new algorithm to find the root of non-linear transcendental functions. It is found that Regula-Falsi method always gives guaranteed result but slow convergence. However, Newton- Raphson method does not give guaranteed result but faster than Regula-Falsi method. Therefore, the present