SOME NEW OSTROWSKI TYPE FRACTIONAL INTEGRAL INEQUALITIES FOR GENERALIZED RELATIVE SEMI-\((m,h)\)-PREINVEX FUNCTIONS VIA CAPUTO \(k\)-FRACTIONAL DERIVATIVES

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Abstract. In the present paper, the notion of generalized relative semi-\((m,h)\)-preinvex function is introduced and some new integral inequalities for the left-hand side of Gauss-Jacobi type quadrature formula involving generalized relative semi-\((m,h)\)-preinvex functions are given. Moreover, some new generalizations of Ostrowski type integral inequalities to generalized relative semi-\((m,h)\)-preinvex functions that are \((n+1)\)-differentiable via Caputo \(k\)-fractional derivatives are established. Some applications to special means are also given. It is pointed out that some new special cases can be deduced from main results of the article.

References


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