

عنوان مقاله:

Discrete Galerkin Method for Higher Even-Order Integro-Differential Equations with Variable Coefficients

محل انتشار:

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خلاصه مقاله:

This paper presents discrete Galerkin method for obtaining the numerical solution of higher even-order integro-differential equations with variable coefficients. We use the generalized Jacobi polynomials with indexes corresponding to the number of homogeneous initial conditions as natural basis functions for the approximate solution. Numerical results are presented to demonstrate the effectiveness and wellposedness of the proposed method. In addition, the results obtained are compared with those obtained by well known Pseudospectral method, thereby confirming the superiority of our proposed scheme.

کلمات کلیدی:

Discrete Galerkin method, Generalized Jacobi polynomials, Higher even-order Integro-Differential Equations

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