In this paper is suggested an efficient method to solve differential equations. Using quadratic Legendre multi-wavelets approximation method, differential equations are converted into the system of algebraic equations with the help of operational matrix of integration and its product. Some illustrative examples are included to show the efficiency and applicability of the method.
Solving Differential Equations of Second Order using Quadratic Legendre Multi-wavelets (QLMW) with Operational Matrix of Integration.


Index Terms

Computer Science Applied Sciences

Keywords

Quadratic Legendre wavelets; Quadratic Legendre multi-wavelets; Operational matrix of integration; Differential equations.