عنوان مقاله:

Solving the First-Order Linear Matrix Differential Equations Using Bernstein Matrix Approach

نویسندگان:

Z. Lorkojouri - *Department of Mathematics, Science and Research Branch, Islamic Azad University, Tehran, Iran*

.N. Mikaeilvand - *Department of Mathematics, Ardebil Branch, Islamic Azad Unilversity, Ardebil, Iran*

E. Babolian - *Department of Computer Science, Kharazmi University, Tehran, Iran.*

خلاصه مقاله:

This paper uses a new framework for solving a class of linear matrix differential equations. For doing so, the operational matrix of the derivative based on the shifted Bernstein polynomials together with the collocation method are exploited to decrease the principal problem to system of linear matrix equations. An error estimation of this method is provided. Numerical experiments are reported to show the applicably and efficiency of the propounded method.

کلمات کلیدی:

Matrix differential equation, Matrix differential equation, Bernstein polynomials, Operational matrix of derivative, Error estimation.

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