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# On a new family of the extended generalized Bessel-type matrix polynomials

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## Abstract:

This paper is developed to study of new families of an extension of the generalized Bessel-type matrix polynomials with three, four and five matrices by using the various families of integral representation method. An interesting further qualitative properties of this integral representations method are given. Subsequently, explicit formulas for the extended generalized Bessel matrix polynomials and their interesting properties are investigated.

## Keywords:

Hypergeometric matrix function; Bessel matrix polynomials; Recurrence matrix relations; Integral representations.

## Published In:

Mitteilungen Klosterneuburg Journal , Vol. 65- No. 2 , 100-121.