Operators and Matrices
Volume 15, Number 4 (2021), 1227–1240 doi:10.7153/oam-2021-15-77

ON SOME GENERALIZED INVERSES OF $M_\vee$–MATRICES

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Abstract. In this paper we study a class of generalized M-matrices known as $M_\vee$-matrices. An $M_\vee$-matrix has the form $A = sI - B$, with $s \geqslant \rho(B)$ and B eventually nonnegative. An attempt is made to characterize $M_\vee$-matrices, by extending the results of Neumann and Plemmons for M-matrices. In particular, we characterize two different subclasses of $M_\vee$-matrices in terms of various types of generalized inverses.

Mathematics subject classification (2020): 5A09, 15A18, 15B48.
Keywords and phrases: Eventually nonnegative, eventually positive, eventually monotone, Perron-Frobenius property, generalized inverse.

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Paper OaM-15-77
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