LEVITIN-POLYAK WELL-POSEDNESS OF THE SYSTEM OF WEAK GENERALIZED VECTOR EQUILIBRIUM PROBLEMS

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Abstract. In this paper, we introduce two types of the Levitin-Polyak well-posedness for the system of weak generalized vector equilibrium problems. By using the gap function of the system of weak generalized vector equilibrium problems, we establish the equivalent relationship between the two types of Levitin-Polyak well-posedness of the system of weak generalized vector equilibrium problems and the corresponding well-posednesses of the minimization problems. We also present some metric characterizations for the two types of the Levitin-Polyak well-posedness of the system of weak generalized vector equilibrium problems. The results in this paper are new and extend some known results in the literature.

Key Words and Phrases: System of weak generalized vector variational inequalities, Levitin-Polyak well-posedness, Levitin-Polyak approximating solution sequence, gap function, metric characterizations.

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