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ON A SYSTEM OF REGULARIZED NONCONVEX VARIATIONAL INEQUALITIES

QAMRUL HASAN ANSARI AND JAVAD BALOOEE

Abstract. In the present paper, we point out that the basic result, which is the main tool, in [D. J. Wen, Projection methods for a generalized system of nonconvex variational inequalities with different nonlinear operators, Nonlinear Anal. 73 (2010) 2292–2297] has some fatal errors. Therefore, the results and algorithms in the above mentioned paper are no longer valid. To overcome with the problems in the above mentioned paper, we introduce a system of regularized nonconvex variational inequalities (SRNVI) and establish an equivalence between this system and a fixed point problem. By using this equivalence, we suggest a projection iterative algorithm for solving SRNVI. Furthermore, we also prove the existence and uniqueness of a solution of SRNVI. The convergence analysis of the suggested iterative algorithm is studied. As a consequence, we derive the correct version of the algorithms and results presented in the above mentioned paper.

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