Variational inequalities governed by semi-monotone operators (II)

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Abstract

Variational inequalities governed by semi-monotone operators appear in mechanics and engineering which are monotone only in those terms in the principal part, i.e. in the highest order terms. We show that such problems can be considered as particular cases of equilibrium problems with trifunctions. Using a new existence theorem for such equilibrium problems, we prove first an existence result for variational inequalities governed by semi-monotone operators, and then another existence result for hemivariational inequalities governed by semi-monotone operators.