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Bijaya Kumar Sahu* (bks10@iitbbs.ac.in), College of Basic Sciences, Indian Institute of Technology, Bhubaneswar, Bhubaneswar, Orissa 752050, India. *Existence of solutions for extended generalized complementarity problems.*

In this paper we introduce extended generalized complementarity problems in Hausdorff topological vector spaces in duality and study the existence of their solutions. We use a different method than those in the literature on the existence of solutions of complementarity problems, which are usually based on arguments from generalized monotonicity. This leads us to obtain new results and improve many existing results in the literature. We also prove some existence results

for extended generalized complementarity problems in reflexive Banach spaces by means of a Tikhonov regularization procedure under a copositivity assumption and arguments from the recession analysis. (Received September 15, 2020)