Kumar, Anil; Rathee, Savita
Some common fixed point and invariant approximation results for nonexpansive mappings in convex metric space. (English) Zbl 1462.54076

Summary: In this work, we introduce a new class of self-maps which satisfy the (E.A.) property with respect to some \( q \in M \), where \( M \) is \( q \)-starshaped subset of a convex metric space and common fixed point results are established for this new class of self-maps. After that we obtain some invariant approximation results as an application. Our results represent a very strong variant of the several recent results existing in the literature. We also provide some illustrative examples in the support of proved results.

MSC:
54H25 Fixed-point and coincidence theorems (topological aspects)
54E40 Special maps on metric spaces
41A50 Best approximation, Chebyshev systems
41A65 Abstract approximation theory (approximation in normed linear spaces and other abstract spaces)

Keywords:
EA-property; common fixed point; best approximation; compatible maps; subcompatible maps

Full Text: DOI

References:

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