Dislocated cone metric space over Banach algebra and $\alpha$-quasi contraction mappings of Perov type. (English) Zbl 1462.54061

Summary: A dislocated cone metric space over Banach algebra is introduced as a generalisation of a cone metric space over Banach algebra as well as a dislocated metric space. Fixed point theorems for Perov-type $\alpha$-quasi contraction mapping, Kannan-type contraction as well as Chatterjee-type contraction mappings are proved in a dislocated cone metric space over Banach algebra. Proper examples are provided to establish the validity of our claims.

MSC:
54H25 Fixed-point and coincidence theorems (topological aspects)
54E40 Special maps on metric spaces

Keywords:
fixed points; cone metric space; dislocated cone metric space; $\alpha$-admissible mapping

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References:
[2] Hitzler, P; Seda, AK, Dislocated topologies, Bratislava · Zbl 0968.54001

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