FIXED POINT THEOREMS IN GENERALISED CONE METRIC SPACES

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Abstract: Within a new class of recently proposed generalised cone metric space, we present generalised cone metric space and establish various generalisations of fixed point findings for cone version contraction types of Kannan and Chatterjea.

1. Introduction and Definitions

Huang and Zhang [7] proposed the idea of cone metric space. They define cone metric space and order Banach space in lieu of real numbers in this study. The fixed point theorem in cone metric spaces ensures that this map must have a unique fixed point. They also provided an example of a function that is contraction in the cone metric category but not contraction when evaluated across metric spaces.

Later, in cone metric space, Rezapour and Halbarani [13] did not include the normalcy assumption. Subsequently, a number of publications in cone metric space began to surface (see to [3, 4, 8, 12, 14, 15] and their references).

Many authors improved the classical concept of metric space by changing the metric criteria. The Banach contraction principle is an important technique for determining the existence of solutions to mathematical models of real-world situations including functional, differential, integral, matrix, and other forms of equations.