SOME COMMON REVISED FUZZY FIXED POINT THEOREMS ON G-METRIC SPACE

Md Kabir Shah, L. Shambhu Singh and Th. Chhatrajit Singh*

Department of Mathematics,
Dhanamanjuri University,
Imphal, Manipur - 795001, INDIA

E-mail : kavirshah900@gmail.com, lshambhu1162@gmail.com

*Department of Mathematics,
Manipur Technical University,
Takyelpat Imphal, Manipur -795004, INDIA

E-mail : chhatrajit@mtu.ac.in

Abstract: The objective of this paper is to investigate and generalize fuzzy fixed point theorems within the framework of G-metric spaces a class of generalized metric spaces that provide a versatile structure for analyzing fixed point results in more flexible and abstract settings. By revisiting several classical fuzzy fixed point theorems, this study establishes new generalized versions that are specifically adapted to the inherent properties of G-metric spaces. These generalizations not only strengthen and extend existing results but also enhance their applicability to a broader spectrum of problems characterized by uncertainty and imprecision, which are frequently encountered in practical contexts. The outcomes of this research underscore the significance of integrating fuzzy logic with advanced structures in metric space theory, offering meaningful contributions to the mathematical foundations that support applications in engineering, applied sciences, and related fields.

Keywords and Phrases: Coincidence point, Revised fuzzy metric space, G-metric space, CLR_g property, weakly compatible maps.

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