

**COMMON FIXED POINT OF COMPATIBLE TYPE (K)
MAPPINGS IN FUZZY METRIC SPACE**

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Abstract: The purpose of this paper is to establish a common fixed point theorem for six self-mappings in complete fuzzy metric space, using the concept of compatibility of type (K) with another functional inequality and our result generalize the result of K. B. Manandhar and et al. [7] and other similar results in the literature.

Keywords and Phrases: Common fixed point, fuzzy metric space, compatible mappings of type (E) , compatible mappings of type (K) .

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1. Introduction

The concept of fuzzy set was introduced by Zadeh (1965) [13] as a new way to represent vagueness in everyday life. A large number of renowned mathematicians worked with fuzzy sets in different branches of Mathematics, Fuzzy Metric Space is one of them. This paper uses the concept of fuzzy metric space introduced by Kramosil and Michalek [6] and modified by George and Veeramani [1] with the help of a t -norm. Grabiec [2] obtained the fuzzy version of the Banach contraction principle, which is a milestone in developing fixed point theory in fuzzy metric