FIXED POINT OF KANNAN RESULTS IN FUZZY METRIC SPACES

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Abstract: In this paper we prove some fixed point theorems of R. Kannan [Bull. Calcutta Math. Soc., 60(1968), 71-76] in fuzzy metric spaces in the sense of I. Kramosil and J. Michalek, [Kybernetica, 11(1975), 336-344]. The mappings are used as defined by V. Gregori and A. Sapena [Fuzzy Sets and Systems, 125(2002), 245-252].

Keywords and Phrases: Fuzzy metric space, Common fixed point, G-Cauchy sequence.

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1. Introduction

The notion of fuzzy set was introduced by Zadeh [15]. Subsequently many authors used the fuzzy concept in various fields and in this fuzzy Mathematics, fuzzy metric space plays a vital role. The notion of fuzzy metric spaces has been introduced in different ways by many authors (refer [3], [10], [16]). George and Veeramani [2] modified the concept of fuzzy metric space introduced by Kramosil and Michalek [10] and also defined the Hausdorff topology of fuzzy metric space and consequently they showed every metric induces a fuzzy metric. Grabiec [5] proved the contraction principle in the setting of fuzzy metric space introduced by Kramosil and Michalek [10]. Gregori and Sapena [7] obtained fixed point results for fuzzy metric spaces in the sense of George and Veeramani [2] and also for Kramosill