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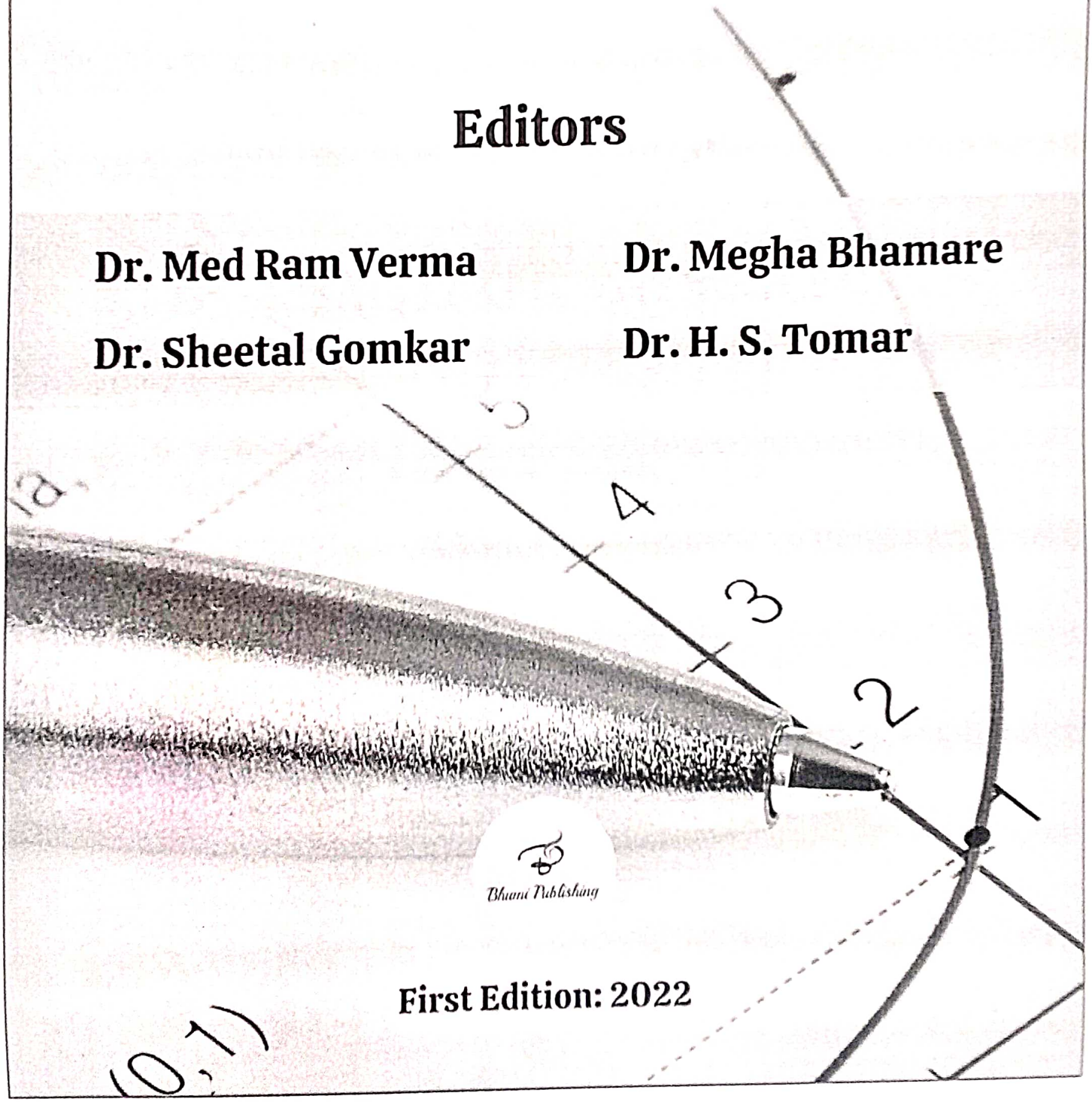

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CONTENT

ON INTUITIONISTIC FUZZY $\pi\gamma$ GENERALIZED CONTINUOUS MAPPINGS

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Abstract:

This paper is devoted to the study of intuitionistic fuzzy topological spaces. In this paper $\pi\gamma$ generalized continuous mappings in intuitionistic fuzzy topological spaces is introduced. Also, we have analyzed some properties of $\pi\gamma$ generalized continuous mappings in intuitionistic fuzzy topological spaces.

Keywords: Intuitionistic fuzzy topology, Intuitionistic fuzzy $\pi\gamma$ generalized continuous mappings.

1. Introduction:

In 1965, the concept of Fuzzy sets was introduced by Lofti A. Zadeh [10] and in 1968, Chang [3] introduced and developed fuzzy topology. After the introduction of fuzzy set and fuzzy topology, several authors conducted researchers on the generalization of these notions. In the year 1986, the notion of intuitionistic fuzzy sets was introduced by Atanassov [1] as a generalization of fuzzy sets and Coker [4] introduced the concept of intuitionistic fuzzy topological spaces in 1997. In 2017, Prema S and Jayanthi D [9] has introduced intuitionistic fuzzy γ generalized continuous mappings. In this paper we have introduced $\pi\gamma$ generalized continuous mappings in intuitionistic fuzzy topological spaces and investigated some of their properties and obtained some interesting characteristics.

2. Preliminaries:

Definition 2.1: [1]

Let X be a non-empty fixed set. An ***intuitionistic fuzzy set*** (IFS in short) A in X is an object having the form $A = \{ \langle x, \mu_A(x), \nu_A(x) \rangle / x \in X \}$ where the functions $\mu_A(x) : X \to [0,1]$ and $\nu_A(x): X \to [0,1]$ denotes the degree of membership (namely $\mu_A(x)$) and the degree of non – membership (namely $\nu_A(x)$) of each element $x \in X$ to the set A, respectively, and $0 \leq \mu_A(x) + \nu_A(x) \leq 1$ for each $x \in X$. Denote by IFS(X), the set of all intuitionistic fuzzy sets in X.