

**$M - N$ ANTI HOMOMORPHISM OF AN $M - N$ FUZZY SOFT
SUBGROUPS AND ITS LEVEL $M - N$ SUBGROUPS**

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Abstract: In this paper, we have discussed the concept of $M - N$ anti homomorphism of fuzzy soft subgroups, then we define the $M - N$ anti level subsets of a fuzzy soft subgroup and its some elementary properties are also discussed.

Keywords and Phrases: Fuzzy group, M-N anti fuzzy group, M-N anti fuzzy soft subgroups, $M - N$ anti level subset, $M - N$ anti homomorphism of fuzzy soft subgroups.

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1. Introduction

There are various types of uncertainties in the real world, but few classical mathematical tools may not be suitable to model these uncertainties. Many intricate problems in economics, social science, engineering, medical science and many other fields involve undefined data. These problems which one comes face to face with in life cannot be solved using classical mathematical methods. In classical mathematics, a mathematical model of an object is devised and the concept of the exact solution of this model is not yet determined. Since, the classical mathematical model is too complex, the exact solution cannot be found. There are several well renowned theories available to describe uncertainty. For instance, In [15], Rosenfeld introduced the concept of fuzzy subgroup in 1971 and the theory of fuzzy sets was inspired by Zadeh [19] in addition to this, Molodtsov [11] have