

**Abstract No: FYT7**

### **ON INTUITIONISTIC FUZZY $G_\delta$ REGULAR WEAKLY $\theta^*$ FILTERS**

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A new set called  $G_\delta$  regular weakly  $\theta^*$  - open set is coined. Based on this set, an intuitionistic fuzzy filter is defined. In this connection, several properties of it are established.

**Abstract No:FYT8**

### **SCALABLE SOFT FUZZY TOPOLOGICAL SPACES**

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In this paper, the fuzzy topological spaces are enriched by additional structures in order to give a computational processes and to provide for utilization of the powerful technique developed in fuzzy topological spaces. The concept of scalable soft fuzzy set is introduced, which provides a natural framework for generalizing many of the concepts of general topology to what might be called scalable soft fuzzy topological space. Basic concepts such as open set, closed set, neighbourhood, interior set, continuity and compactness, following closely the definitions, theorems and proofs given in Kelly.

**Abstract No:FYT9**

### **VAGUE SOFT MATRIX THEORY AND ITS APPLICATION**

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The main purpose of this paper is to introduce the new concepts of vague soft matrices

to represent vague soft sets. The new concept of the arithmetic mean (AM) and the weighted arithmetic mean (WAM) of a vague soft matrix are introduced in order to solve the problems in decision making. Further, we propose a new algorithm based on the comparison of choice values of different objects which helps to identify the optimum choice of an object in the vague soft matrix than the intuitionistic fuzzy soft matrix. Also, it is observed that the optimum choice vary according to the particular parameter preferences.

**Abstract No:FYT10**

### **SEPARATION AXIOMS OF $g^{##}$ - CLOSED SET IN FUZZY TOPOLOGICAL SPACES**

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The purpose of this paper is to introduce, a new class of spaces in fuzzy topological spaces called  $fg^{##}-T_i$  spaces for  $i=0, 1/2, 1, 2, 2 1/2$  as an application of fuzzy  $g^{##}$ -closed set. We also investigated a new type of separation axioms by considering the fuzzy disjointness which agrees with ordinary set and theoretical disjointness in the crisp case. The separation axioms with their properties are analyzed. Along with this, we investigated several relationships between existing fuzzy spaces with counter examples.