Title: Some characterizations of semigroups in terms of intuitionistic fuzzy interior ideals

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Abstract: The importance of semigroups and their fuzzy subsystems is evident from their applications and significant role in several applied dis-ciplines like computer sciences, control engineering, error-correcting codes and fuzzy automata theory. In this paper, we give generalizations of in-tuitionistic fuzzy interior ideals of semigroups and introduced the notions of intuitionistic fuzzy interior ideals of type (V qk) and of semi-groups. The important mile stone of the present paper is to link ordinary intuitionistic fuzzy interior ideals, intuitionistic fuzzy interior ideals and (V, qk)-intuitionistic fuzzy interior ideals. Moreover semigroups are characterized by the properties of these notions.