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**INDEPENDENT ELEMENTS OF  $N$ -GROUPS**

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(WITH SYAM PRASAD KUNCHAM AND VENKATA PRADEEP KUMAR TUMURUKOTA)

Let  $N$  be a zero symmetric right nearring and  $G$  an  $N$ -group. We consider the fuzzy ideal of an  $N$ -group and obtain fundamental results on fuzzy ideals of  $G$ . For any subset  $I$  of  $G$  and any fuzzy set defined by  $\mu(x) = 1$  if  $x \in I$  and  $\mu(x) = 0$ , otherwise, we prove that:  $\mu$  is a fuzzy ideal of  $G$  if and only if  $I$  is an ideal of  $G$ . We also introduce the minimal elements in  $N$ -groups and obtain that if  $G$  has DCC on ideals then every non-zero ideal of  $G$  contains a minimal element. Consequently, some observations on minimal elements, fuzzy linearly independent elements and uniform elements are made with appropriate examples.