LIST OF SYMBOLS

$\subseteq$	subset
$\supseteq$	superset
$\subset$	proper subset
$\supset$	proper superset
ϕ	the empty set
$\in$	belongs to
$\notin$	does not belong to
$\vee$	maximum or supremum
$\wedge$	minimum or infimum
$\cup$	union of sets
$\cap$	intersection of sets
0	the additive identity of a ring or the integer '0'
1	the multiplicative identity of a ring or the integer '1'
e	the identity of the group
θ	the zero element of module
$[0,1]^X$	all fuzzy subsets of X
$M \backslash N$	set difference
μ^c	the complement of μ
μ^{-1}	the inverse of μ
μ^*	$\mu^* = \{x \mid x \in X, \mu(x) > 0\}$, the support of μ
μ_*	$\mu_* = \{x \in G \mid \mu(x) = \mu(e)\}$, where G is a group
μ_t	$\mu_t = \{x \mid x \in X, \mu(x) \geq t\}$, level subset of μ
$f(\mu)$	image of μ under f
$f^{-1}(\mu)$	inverse image of μ under f
$\mu\delta$	the product of μ and δ

$\mu + \delta$	the sum of μ and δ
$\mu - \delta$	the difference of μ and δ
$-\mu$	the negative of μ
$< \mu >$	the fuzzy subset of X generated by μ
χ_A	characteristic function on A
x_t	fuzzy point
$F(G)$	the set of all fuzzy subgroups of G.
$NF(G)$	the class of normal fuzzy subgroups of G
$\mu \lhd \delta$	μ is a normal fuzzy subgroup of δ
$F(R)$	the set of all fuzzy subrings of R
$FI(R)$	the set of all fuzzy ideals of R
$F(M)$	set of all fuzzy submodules of R-module M
$l(a)$	left annihilator of a
$r(a)$	right annihilator of a
$ann(a)$	annihilator of a
$\mu \subseteq_e \nu$	μ is essential in ν
$\mu \subseteq_{e(T)} \nu$	μ is T-fuzzy essential in ν
$\mu : \nu$	$\mu : \nu = \cup\{\eta \mid \eta \in [0,1]^R, \eta\nu \subseteq \mu\}$, residual quotient