PAPERS COVERING THE CONTENTS OF THE THESIS


7. On Somewhat pairwise fuzzy faintly $\omega$-continuous mappings, International Journal of Mathematical Sciences and Applications (Accepted).

8. Somewhat slightly fuzzy $\omega$-continuous mappings, Mathematica Bohemica (Communicated).
LIST OF OTHER PUBLICATIONS

1. **Operation approaches on fuzzy pre-open sets**, Nepal Mathematical society (Accepted).

ABSTRACT

In this thesis, the author introduced and studied the concepts of slightly fuzzy continuous mappings, fuzzy $\omega$-closed set, fuzzy $\omega$-continuous mappings, slightly fuzzy $\omega$-continuous mappings, fuzzy $\omega$-extremally disconnected spaces, somewhat slightly fuzzy $\omega$-continuous mappings, somewhat slightly fuzzy $\omega$-open mappings, L-fuzzy $\omega$-closed set, L-fuzzy $\omega$-basically disconnected spaces, L-fuzzy $\omega$-extremally disconnected spaces, Tietze extension theorem for L-fuzzy $\omega$-basically disconnected spaces and L-fuzzy $\omega$-extremally disconnected spaces, fuzzy $\omega$-compact spaces, fuzzy regular $\omega$-open set, fuzzy weakly/nearly $\omega$-compact spaces, fuzzy $\omega$-closed spaces, fuzzy $\theta^*$-open set, pairwise fuzzy $\omega$-continuous mappings, somewhat pairwise fuzzy $\omega$-continuous mappings, pairwise fuzzy faintly $\omega$-continuous mappings, somewhat pairwise fuzzy faintly $\omega$-continuous mappings, somewhat pairwise fuzzy faintly $\omega$-open mappings, generalized fuzzy pre-border, generalized fuzzy pre-exterior, generalized fuzzy pre-frontier and $g^+\omega$-closed spaces. Properties, characterizations and interrelations among the concepts introduced are discussed. Also, examples and counter examples are provided wherever necessary.