Fuzzy soft set over Fuzzy topological spaces

Saleem Abdullah[a,b]
[a]Department of Mathematics, Qauid-i-Azam University, Islamabad, Pakistan
[a]saleem@math.qau.edu.pk, [b]saleemabdullah81@yahoo.com

Abstract: The aim of this article is to combine the fuzzy soft set and fuzzy topological space. We introduce fuzzy soft set over common universe of fuzzy topological space. We defined quasi-open fuzzy soft set over fuzzy topological space and we study the properties of extended union of two quasi-open fuzzy soft set over fuzzy topological space. We study "OR" and "AND" operations of quasi-open fuzzy soft set over fuzzy topological space. We also define open fuzzy soft set, b-open fuzzy soft set and b-closed fuzzy soft set over fuzzy topological space. We give some characterizations of these concepts.

Keywords: Fuzzy soft set, quasi-open fuzzy soft set, Fuzzy topological space.

References:

[1] D. Molodtsov, Soft set theory-first results, Computers and Mathematics with Applications, 37, pp. 19-31, 1999.

[2] L.Z. Zadeh, Fuzzy sets, Information and Control, 8, pp. 338-353, 1965.