

ON h -IRRESOLUTE TOPOLOGICAL VECTOR SPACES

SHALLU SHARMA, NARESH DIGRA, POOJA SAPROO AND SAHIL BILLAWRIA

ABSTRACT. In 2021, F. Abbas introduced a new class of open sets in topological spaces called h -open sets and explored some properties of these sets. In this paper, we introduced new notions such as strongly h -continuous functions, pre- h -open functions, pre- h -closed functions, h -irresolute-homeomorphism and investigated several properties of these functions. Moreover, we introduced a new class of spaces known as h -irresolute topological vector spaces via these h -open sets. We studied and explored various properties and characterizations of this newly introduced space. Furthermore, we defined an h -extremally disconnected space and proved that an h -irresolute topological vector space X is h -extremally disconnected if and only if h -closures of disjoint pair of h -open sets are disjoint.

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University of Jammu
Department of Mathematics
180006, Jammu, India
E-mail address: shallujamwal09@gmail.com

University of Jammu
Department of Mathematics
180006, Jammu, India
E-mail address: nareshdigra79@gmail.com

University of Jammu
Department of Mathematics
180006, Jammu, India
E-mail address: poojasaproo1994@gmail.com

University of Jammu
Department of Mathematics
180006, Jammu, India
E-mail address: sahilbillawria2@gmail.com