Abstract

In this article, we intend to revisit the coherence established between possibility and probability from some functions which are density functions and would like to draw attention of the fact that since a possibility distribution of a normal fuzzy number can be expressed as two distribution functions by using set superimpositions, it seems that the efforts of finding the density functions which are possibility distributions and probability distributions at the same time would have no logical meaning from our standpoints so far. This paper also revisits the variable transformation established in accordance with some existing transformations. The aim of this paper is to contribute towards the development of a formal technique as well as methodological foundations that could deal with the outlined problems. A new procedure is proposed which disagree with all the existing principles. Further, logic behind our claim is put forward in details and it is expected that this would be able to satisfy all who are working to find possible consistency between possibility and probability.

References

A Note on the Coherence between Probability and Possibility Measures


Index Terms

Computer Science Applied Mathematics

Keywords

Randomness-fuzziness Consistency Principle Glivenko-cantelli’s Theorem
Probability Distribution