

Neutrosophic Variational Inequalities with Applications in Decision-Making

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Abstract

In this paper, we introduced some new concepts of a neutrosophic set such as neutrosophic convex set, strongly neutrosophic convex set, neutrosophic convex function, strongly neutrosophic convex function, the minimum and maximum of a function f with respect to neutrosophic set, min and max neutrosophic variational inequality, neutrosophic general convex set, neutrosophic general convex function and min, max neutrosophic general variational inequality. We introduced some basic results on these new concepts. Moreover, we discussed the application of neutrosophic set in optimization theory. We developed an algorithm using neutrosophic min and max variational inequality and identified the maximum and minimum profit of the company.

Full Text

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