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Fuzzy Representation of Soil Erosion

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Fuzzy representation is a productive method to explain the natural processes so that it is near to linguistic form and it is also applicable to estimate the environmental processes in where the uncertainty in information is high.
As models proposed to estimate soil erosion also have uncertainties and fuzzy inference system is more flexible in describing the relationship between soil erosion and other factor, especially in managing data and model uncertainties.
in the research, it is used simplified model of revised Universal Soil Loss Equation (RUSLE) to estimate soil erosion in dry lands of Kashan area in Central Iran .
Then to discover the systematic (IF-Then) rules in soil erosion process, we used inductive reasoning method to discover rules of the causing agents of erosion such as rainfall erosivity, topography factors, soil erodibility , then highly supported rules converted to fuzzy rules.
It is resulted that the application of fuzzy inference system for erosion evaluation is applicable in regional level.