عنوان مقاله:

Fuzzy Inference System for Erosion Model

محل انتشار:

دومین کنگره بین المللی علوم زمین و توسعه شهری (سال: 1395)

تعداد صفحات اصل مقاله: 9

نویسنده:

Chooghi Bairam Komaki - *Assistant Professor, Gorgan University of Agricultural Sciences & Natural Resources, Faculty ofRangeland and Watershed Management, Department of Desert Region Management.*

خلاصه مقاله:

Logic is one of fundamentals of science, so that in opposite to mathematics which is based on numerical variables, logic can describe the validity of the scientific processes in another way, i.e. linguistic variable. Recently fuzzy logic has been versatile values in either pure orapplied science; especially it is used successfully from natural processing to industrial applications. In this research, the main concepts of fuzzy model is used to introduce the modelling of erosion. This model also follows the procedures would be introduced for fuzzy model such as the uncertainty in fuzzy set and its correspondence to crisp set. Then the necessary elements to build a fuzzy model such as fuzzification, rule base (expert and induction), inference system and defuzzification are described, and the improving of rule based system will be defined via intersection problems in rule base, and simplification or reduction of rules. Finally, Fuzzy Control Language (FCL) will be applied to make a fuzzy model forerosion. As a result, the research introduces the fuzzy model utilities and application in a simple model, which can be recommend in solving of application problems where mathematics cannot be applied.

کلمات کلیدی:

Fuzzy Logic, Crisp Set, Inference System, Fuzzy Control Language, Erosion

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