

Order Number 9032829

A stochastic approach to conjunctive irrigation and drainage systems design

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This thesis presents a stochastic approach to the design of irrigation and drainage systems. The methodology is based on the use of probability distributions to represent the uncertainty associated with the variables involved in the system. The approach is applied to a case study of a drainage system in a catchment area of 2000 ha. The results show that the proposed methodology can be used to design efficient irrigation and drainage systems under uncertain conditions.

The thesis is divided into six main chapters. Chapter I contains an introduction to the problem and a review of the literature. Chapter II deals with the estimation of the parameters of the probability distributions used in the model. Chapter III presents the methodology for the design of the irrigation and drainage systems. Chapter IV contains the results of the application of the methodology to the case study. Chapter V discusses the conclusions and recommendations. Chapter VI contains the references.

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