

A method for solving fuzzy goal programming problems based on MINMAX approach

M. A. Yaghoobi^a and M. Tamiz^b

^a Faculty of Mathematics and Computer Sciences, University of Kerman, Kerman, Iran

^b Department of Mathematics, University of Portsmouth, Buchingham Building, Lion Terrace, Portsmouth, PO1 3HE, Uk

Abstract

Narasimhan has incorporated fuzzy set theory within the traditional goal programming formulation since 1980. Since then a lot of research has been carried out in this field. One of the well-known methods for solving fuzzy goal programming problems was proposed by Hannan. In this talk we apply the conventional MINMAX approach in goal programming to solve fuzzy goal programming problems. We prove that the proposed method is an extension to Hannan model that deals with the unbalanced triangular linear membership functions. Also, it is shown that our method is equivalent to the method proposed by Yong et al. A numerical example is given to demonstrate the validity and strengths of our method in contrast with the others.

Keywords: Fuzzy goal programming; Goal programming; Fuzzy programming; MINMAX method