This book is very general and easy to understand and will appeal to O.R. and computer departments who are closely involved in the development of large computer systems. The book lacks sufficient detail to implement anything but is full of interesting concepts and ideas.

The quality of production is very good, and the book is reasonably priced.

HOWARD CARTER

Linear Programming in Single and Multiple Objective Systems
JAMES P. IGNIZIO
Prentice Hall, Inc., Englewood Cliffs, N.J. 07632, 1982. xvii + 506pp. £22.45
ISBN 013 537027 2

Prentice Hall have recently published some excellent books, under the International Series in Industrial and Systems Engineering, and this is one such publication. This new text book provides graduate level students with a clear explanation of linear programming in single and multiple objective systems. The style resembles that of the author's earlier book "Goal Programming and Extension".

The book is divided into four parts. The first part contains the pre-requisite knowledge needed for a study of linear programming. The second part exhibits traditional linear programming, i.e. formulation of L.P., graphical solution, simplex method, duality in L.P., dual simplex and primal-dual algorithms and sensitivity analysis. Some special models (e.g. transportation, transshipment, production scheduling and assignment) are discussed in the third part, together with an introduction to network theory. It is in the fourth part that the author describes linear programming in multiple objective systems (i.e. linear goal programming), covering formulation, methods of solution, duality and sensitivity analysis.

Well organised and lucidly written, this is an excellent text book for graduate level courses and offers accessible self study material. It can also be a useful reference for an O.R. practitioner. As the book is introductory, the author has tried to skip over the more advanced mathematical sophistication. For this reason, it may not appeal to those who are mathematically inclined. Each model is illustrated with specific detailed examples and many exercises. A brief summary at the end of each chapter is quite useful for revising the text. Each chapter also contains a list of relevant references for further study. The author has elegantly described the concept of duality in both linear programmings, i.e. in single objective as well as in multiple objective systems. While discussing the computational aspect, the author compares the "Khachian's polynomial algorithm" for solving linear programming problems with the simplex method and concludes: "... Khachian's algorithm appears to be far less efficient on L.P.s than the simplex method". The author has justified his claim: "... the text is intended for those individuals who wish to both understand and implement the methodology. The second purpose of the text is to incorporate, in the coverage, a unified presentation of both traditional (i.e. single objective) linear programming and multiple objective linear programming".

In conclusion, it is a book worth having.

S.M. JUNAID ZAIDI

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