

Book Selection

Edited by JOHN HOUGH

EDWARD MINIEKA: Optimization Algorithms for Networks and Graphs	195
RAY WILD: Production and Operations Management	195
N. PAUL LOOMBA: Management—A Quantitative Perspective	196
FRIEDRICH ROSENKRANZ: An Introduction to Corporate Modelling	197
ROBERT B. ANDERSON: Proving Programs Correct	198

Optimization Algorithms for Networks and Graphs

EDWARD MINIEKA

Marcel Dekker, New York, 1979. x + 356 pp. Sw. Fr. 55.00

It is very pleasant to find a book whose author has recognised a gap in the literature of operational research techniques and has produced a text which fills that gap so comprehensively and with such clarity of exposition. There are many algorithms for solving problems expressed as networks or graphs, but they have tended to be difficult to locate and hence are little used. Dr Minieka has brought together a number (26 are indexed) of algorithms, which he presents in eight chapters, each devoted to a group of related problems.

His presentation is aimed at the newcomer to the subject and falls into a pattern in the chapters. There is a general introduction, in which simple examples of network problems are presented and discussed, followed by a section on the algorithms which are presented both informally and formally. In places, you can imagine the author speaking, as for instance: "For large graphs, . . . , this construction procedure requires an excessive and perhaps prohibitive number of calculations. Fortunately, there is an efficient algorithm . . .". Such a style may grate with the expert on the techniques, but this book is not intended primarily at this readership.

The eight chapters cover, as one might expect, algorithms for shortest paths, optimal flows, project networks, and the traveling salesman problem (the coverage of this was a little disappointing) and then extends to tree algorithms, techniques for matching and covering, the postman problem and methods for optimal location. Each one is more or less self-contained, with a bibliography, so could be used for reference without too much difficulty. For student use, there are exercises throughout.

This book deserves to be on hand for study and reference by anyone concerned with network problems. The price may seem high, but it is unlikely that a better book on the subject will be needed for several years, by which time, perhaps, Dr Minieka will himself produce a replacement of the same high quality!

DAVID K. SMITH

Production and Operations Management: Principles and Techniques

R. WILD

Holt-Saunders Ltd, U.K. 1979. 613 pp. £5.95

This paper back edition runs to six hundred generally readable pages. It draws to a significant extent upon earlier works by the author replacing "The Techniques of Pro-