

Book Selection

Edited by JOHN HOUGH

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Computer Simulation in Management Science

M. PIDD

Wiley & Son, U.K., 1984. 237 pp. £8.95
ISBN 0 471 90281 0

To provide a comprehensive introduction to computer simulation in management science necessitates discussion of three separate disciplines: simulation, model building and computer programming. Pidd addresses this problem in a structured manner and, on balance, the text must be viewed as a useful introduction. It consists of three sections: (1) Fundamentals of computer simulation in management science; (2) Discrete event simulation; and (3) System dynamics. The first section provides the breakdown and rationale for the text, while the third part is largely concerned with enhancements to topics described in Section 2. It is this middle section which forms the main material, where a number of approaches (event, activity, process interaction, Tocher's 3-phase ABC) to discrete event simulation are described. Simulation software, such as block diagram system (GPSS, HOCUS) and statement description languages (CAPS/ECSL, SIMULA, SIMSCRIPT), are summarized. In addition, some BASIC programs are provided as evidence of ad hoc applications. The statistical discussion of sampling methods appears to be rather technical given the practical nature of the remainder of the text. Certainly, M.B.A. students would be put off by such a presentation. Far more useful would have been the actual BASIC coding for a number of the more well-known statistical distributions, based on the uniform R.N.D. random number generator.

The multi-disciplinary nature of the text is such that the prior knowledge assumed is rather fragmentary, and consequently this text is not likely to appeal as a student text unless it is for a specialist simulation course. Certainly, more detailed cases would be useful. In the same vein, the general O.R. practitioner may find that in parts the coverage is too detailed and in others it has only whetted his appetite.

CHRIS BEAUMONT

Mathematical Methods in Management

GEOFFREY GREGORY

J. Wiley & Sons Limited, Chichester, 1984. 154 pp. £9.95
ISBN 0 471 90131 8

Professor Gregory's book on the application of mathematical (operational research) techniques to the functional contexts of management is one of an