

**COMPUTERS AND CONTROL  
IN CLINICAL MEDICINE**

# COMPUTERS AND CONTROL IN CLINICAL MEDICINE

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PLENUM PRESS • NEW YORK AND LONDON

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Library of Congress Cataloging in Publication Data

Main entry under title:

Computers and control in clinical medicine.

Includes bibliographies and index.

1. Medicine, Clinical—Decision making—Data processing—Addresses, essays, lectures. 2. Diagnosis—Data processing—Addresses, essays, lectures. I. Carson, Ewart R.

II. Cramp, D. G. [DNLM: 1. Computers. 2. Medicine. W 26.5 C7453]

R858.C648 1985

610'.28'54

84-23724

ISBN-13: 978-1-4612-9482-5

e-ISBN-13: 978-1-4613-2437-9

DOI: 10.1007/978-1-4613-2437-9

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©1985 Plenum Press, New York

Softcover reprint of the hardcover 1st edition 1985

A Division of Plenum Publishing Corporation

233 Spring Street, New York, N.Y. 10013

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## PREFACE

This book is a collection of invited contributions, each reflecting an area of medicine in which computing techniques have been successfully applied; but why the title? From a control system point of view the aim of clinical medicine is to recognise the deviation of a patient from the space of normality, and to propel and steer the patient along a trajectory back to that space. Acquiring and maintaining the knowledge and skills of this process is the function of medicine.

The first chapter expands on this view. Subsequent chapters written by experts in their respective areas cover a fair range of application. All give considerable insight as to the ways in which the control system approach, facilitated by computational tools, can be of value when applied to clinical problems.

The idea for this book arose naturally out of a symposium held at the University of Sussex, Brighton, England, on "Control System Concepts and Approaches in Clinical Medicine" in April, 1982, sponsored by the Institute of Measurement and Control and co-sponsored by the Institution of Electrical Engineers and the Royal Society of Medicine. It is not, however, a "proceedings" of this meeting but rather a collection of essays that reflect developing areas in which many have particular interest. We think the volume is timely and hope that the work described will be an encouragement for others.

We wish finally to express our thanks to those friends who have made this book possible; our colleagues on the Symposium Organising Committee Ludwik Finkelstein of The City University and David Ingram of St. Bartholomew's Hospital Medical College; Michael Yates of the Institute of Measurement and Control; Audrey Cackett who has so expertly provided the camera-ready manuscript; and Ken Derham and his colleagues at Plenum Press.

London,  
June, 1984

EWART R. CARSON  
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