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## REVIEWS

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**Digital Image Processing.** By Rafael C. Gonzalez and Paul Wintz, (Addison-Wesley Publishing Co, Inc., Reading, Massachusetts), 1978. Pp. xvi+431. Price: Hard Bound \$ 29.50; Paper Bound \$ 19.50.

"After growing wildly for years, the field of computing now appears to be approaching its infancy" is the caption for an interesting photograph which appeared some years ago in the brochure of the Department of Computer Science, University of Illinois. What the above statement indirectly conveys, to my mind, is that the methodical development and the organised utilisation of computers are relatively fresh endeavours. A better example than the Application of Digital Computers in Image Processing cannot be found in the context of methodical development and organised utilisation of digital computers.

The dozen or so books, the dozens of conference proceedings and the hundreds of journal papers which have appeared in print so far, along with the commercially available digital image processing systems, bear ample testimony to the rapid growth in academic popularity as well as in practical utility of Digital Image Processing. Almost all the books that have been written so far on this subject are meant for the specialist; an introductory level text book on Digital Image Processing has been long awaited and I am very pleased to see that the book written by Gonzalez and Wintz is going to fulfil this particular need adequately.

Image digitization; Image enhancement and restoration; Image encoding; Image segmentation and representation are four broad categories into which most logically all the techniques of image processing could be classified. It is gratifying to see that the authors have chosen to organise the chapters in their book based on this classification.

The authors have stated in the Preface. "The principal objectives of this book are to provide an introduction to basic concepts and techniques for digital image processing and to lay the foundation which can be used as the basis for further study and research in this field." I believe the authors have succeeded admirably in achieving their objectives by providing: appropriate chapter organisation; lucid exposition of

basic concepts and the right level of mathematical techniques and the right amount of general reference material at the end of each chapter. The appendices are well conceived and they, I am sure, will be of immense help to the reader. Probably a good number of problems at the end of each chapter would have resulted in substantial image enhancement for the book as a text for classroom use.

The getup and the printing of the book are of high quality and if the price is not prohibitively high, I believe this book should find a place on the bookshelves of all students, teachers and researchers who are interested in the field of Image Processing.

S. V. PAPPU.

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**Drug and Chemical Toxicology** Edited by John G. Keller (Marcel Dekker Journals, P.O. Box 11305, Church Street Station, New York, NY 102 10249), 1977-78, Quarterly—Four issues per volume, Vol. I, No. I, pp. 101. Price: Annual Subscription: USA \$ 40.00; elsewhere \$ 45.40.

This new quarterly journal aims at providing rapid communication of information pertaining to animal toxicology, teratology, mutagenesis and carcinogenesis and will publish full-length research papers, review articles and short notes.

Acute and Subacute toxicology of a bacteriostatic and fungistatic agent hexahydro-1, 3, 5-triethyl-S-triazene, and of cathartic and emollient laxatives danthron, Sulfosuccinate and poloxalkol; reproductive and teratological studies with the volatile anesthetic, isoflurine; enhancement of the toxicity of 1, 1-dichloro ethylene by pretreatment with 2, 3-epoxypropan; *in vivo* inhibition of cholinesterase with organic phosphate inhibitors; acute mitochondrial toxicity of caffeine in cultured heart cells and Hair dyes and aplastic anamia are the topics presented in this first number of the journal. The journal is a welcome addition to the libraries and individuals interested in Toxicology of Drugs.

M. S.