

BOOK REVIEWS

young scholars interested in pursuing a career in research, as it addresses some fundamental issues regarding sampling strategy and experimental design, both of which are the foundation of any scientific study. The remaining chapters in this section deal with the importance of statistics in the fields of medicine and public health, social sciences and industry. The authors encourage the readers to communicate with them if they need advice on dealing with their statistical problems, or to merely indulge in sharing ideas about the use of statistics in real-life problems.

In the second section the authors demonstrate practical applications of statistics with special reference to problems encountered in India. A wide spectrum of fields is covered, including public health, ecology, agriculture, social sciences, atmospheric sciences as well as market research. The discussion is cursory, however, reference to appropriate reading has been provided. The book is heavily inclined towards topics from the field of biology despite the title. Examples from other fields seem to be added as an afterthought, considering how detailed or better explained those from biology are. The constraints under which the authors had to operate to avoid making the book bulky are, however, understandable.

The concluding section deals with statistics education in India. The authors intend to change the perception of statistics from merely being a branch of mathematics to that of a tool to address societal problems. The inclusion of this section in an introductory statistics text is not apparent. However, the motivation of this section is to take statistics education beyond the realms of being an obligatory inclusion in the curriculum. The authors provide suggestions to help teachers of statistics to devise their course intelligibly. The application of statistics in clinical trials is a fairly important one, however, it seems left too late and has been dealt with poorly. Reference to e-books and on-line datasets developed and maintained by experts in the field to enhance statistical teaching and learning has been provided.

In summary, the book is an easy read and the authors have done an excellent job of giving an overview of different statistical methods, allowing the reader to get comfortable with the theory and eventually think of real-life applications of the methods. The book fills a void in

the literature which was long ignored: extending the knowledge of basic quantitative techniques and principles of data analysis to the common man. As a non-statistician myself, I feel that the readership of this book shall span a wide spectrum; from college-going or high-school students who lack sufficient understanding about statistics to young researchers who need to refresh some of the basic theories in statistics; from the curious layman who wants to learn new techniques to improve his/her business, to an expert who might look upon the book as an enjoyable afternoon read. While the efforts of the authors are commendable, the understanding of concepts banks heavily on the examples provided and the explanation of the theory is often neglected or is merely anecdotal. This runs the risk of the knowledge gained becoming rather superficial. However, as

pointed out by the authors themselves, this book is not meant to be a textbook for learning statistics. For anyone considering applying the methods presented in this book, other sources are needed and ample references have been provided by the authors. In summary, the book achieves its objective of exposing the reader to a wide variety of statistical techniques and their applications without the burden of mathematical rigour, emphasizing on the fact that statistics, indeed, is for everyone.

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Pattern Recognition: An Introduction. V. Susheela Devi and M. Narasimha Murty. Universities Press (India) Pvt Ltd, 3-6-747/1/A and 3-6-754/1, Himayatnagar, Hyderabad 500 029. 2011. xii + 263 pp. Price not mentioned.

Nowadays, in India, pattern recognition is being taught in undergraduate and post-graduate computer science courses. In some institutions, as a part of the artificial intelligence course, some portions of pattern recognition are taught. Some universities are teaching pattern recognition as a part of data mining. This book satisfies the requirements of the teachers of all these courses. It contains several solved examples which bring out the essence of the subject. Students can learn the subject on their own by reading this book. Some chapters of this book are self-contained. The book, as a whole, provides an excellent introduction to pattern recognition.

Pattern recognition is also a mathematical subject. Topics like Markov models, support vector machines and discriminant analysis have a rich mathematical theory. This book provides the basic methods in these topics, and also provides good pointers for further reading. Ensemble classification is another important topic covered in the book. Normalization, different distances like edit distance, and cross validation are some of the other topics which have been dealt with adequately.

In a book like this, there is always a feeling that some topics could have been dealt with in more detail. But, looking at the target readership of this book, the authors have done a commendable job.

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