

Preface

The Society of Statistics and Computer Applications had started its journey in 1997 on the occasion of 75th birthday of Professor M.N. Das for his outstanding and brilliant contributions to the theory and applications of Statistics and Computer applications. Since then the Society has been performing several activities pursuing development of theoretical and applied research work in Statistics. The Society brings out a Journal named "Statistics and Applications" which is available at www.ssca.org.in. It aims at facilitating applications of statistics for providing services in agricultural, social, medical, industrial, financial and other similar sectors and also for theoretical and applied research work in Statistics. The journal also has a section on algorithms and software related activities.

In survey sampling, more curious and problematic issue is to collect information about sensitive questions that may either be extremely sensitive to a respondent or may not be sensitive in view of respondent. When we deal with sensitive and stigmatizing items in surveys like habitual tax evasion, drunken driving, gambling, consuming drugs, extra marital relations, etc., it is a common phenomenon that people simply try to avoid answering truthfully. S. L. Warner (JASA, 1965) gave a standard procedure for estimating the proportion of people bearing a sensitive characteristic, like tax evasion, alcoholism etc. in a given community when a simple random sample is chosen with replacement. It was based on indirect questioning rather than a 'direct response' of 'Yes' or 'No' truthfully about 'bearing a sensitive character', on adopting a suitable randomization device. This is an approach in which the randomization is not only in drawing the sample but also in obtaining the response. The respondent does not provide a direct answer to the sensitive question. Thus the identity of the respondent is protected and at the same time true answer to a sensitive question is elicited. The approach is referred to as a randomized response technique in survey sampling literature. Since this initial guiding work by Warner, huge literature has grown over time, which provides a new approach or platform to statisticians and social scientists. To celebrate the 50 year Golden Jubilee of the Warner's Randomized Response Model, the society had decided to bring out a special issue of the Journal on the theme "Randomized Response Techniques and Their Applications". The Executive Body of the Society and Editorial Board, SSCA appointed Dr. Hukum Chandra and Dr. Sanghamitra Pal as the Guest editors for bringing out this special number.

This Special issue on Randomized Response Techniques and Their Applications contains invited research papers from eminent statisticians around the World. Renowned and active researchers working in this area of research from all over the globe were requested to submit their research articles for this issue. The response was very encouraging. The papers received for possible publication were thoroughly reviewed. After the review process, fifteen papers were accepted for publication and are published in this Special Volume. We express our deep sense of gratitude to all the authors who contributed their research for this special number and also the reviewers for their unflinching support in bringing out this Special issue. We would like to place on record our appreciation towards Professor V.K. Gupta, President of the Society, for his unbounded interest and support, which made this Special Volume a reality. We would like to pay our gratitude to Professor Alope Dey, Chair Editor, Journal of the SSCA, for his guidance and motivation in bringing out this special number. We are also indebted to and all members and office bearers of Executive Council of the Society for their support. The immense help received from Dr. Rajender Parsad, Executive President of the Society and Executive Editor, Journal of the SSCA, and Dr. Lal Mohan Bhar, Managing Editor and Joint Secretary of the Society is gratefully acknowledged. We would also like to

thank Dr. B.N. Mandal, Sh. Naresh Chand and Ms. Sunita for their monumental support in typesetting of the accepted manuscripts.

We sincerely hope that this special volume of Statistics and Applications will serve as a catalyst for further research in this field.

Guest Editors

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