

## Preface

The Society of Statistics, Computer and Applications (SSCA), founded in 1998 in honour of great legendry Professor M.N. Das on the occasion of his 75th birthday, has been organizing national conferences every year along the length and breadth of the country. It has organized thus far 20 conferences. The SSCA among other scientific activities brings out a Journal, called “Statistics and Applications.” This is an open access journal and readers can view full paper online, download it, save it and print it without any cost. The journal publishes research papers after a stringent review process. The journal is available at the website of the SSCA ([www.ssca.org.in](http://www.ssca.org.in)).

The journal aims at facilitating applications of statistics for providing services in agricultural, social, medical, industrial, financial and other similar sectors and also for applied research activities in statistics. It is intended to provide a platform for interaction between statisticians and subject matter specialists who use statistics for their activities. It also aims at exposition of suitable theoretical activities in a user-friendly manner.

The journal also brings out special volumes on emerging thematic areas. Volume 13 (2015) was a special volume on “Statistical Concerns in Child health and Nutrition.” Volume 15 (2017) was also a special volume on “Randomized Response Techniques and Their Applications.”

As you are already aware, recently Professor J.N.K. Rao (popularly known as Jon Rao) celebrated his 80<sup>th</sup> birthday. Many special conferences were organized to honour him. Similarly, several special issues of journals have been dedicated in his honour to felicitate this legendry in statistics on his 80th birthday. The Editorial Board of “Statistics and Applications” too decided to felicitate and honour Prof. J.N.K. Rao on his 80<sup>th</sup> birthday by bringing out a Special Volume containing invited papers from contributors around the globe. The theme of the special volume, finalized in consultation with Jon Rao, was “**Survey Methodology and Applications.**”

The Guest Editors of this special volume in close discussion with the Chair Editor and Editorial Board of “Statistics and Applications,” and Jon Rao prepared a list of potential authors to be invited to submit their research for publication in this Special Volume. The authors invited were essentially Jon’s collaborators, his students, friends and colleagues around the globe. It gives us unbounded pleasure to mention here that the response obtained was overwhelming.

As is well known, Jon Rao is a giant of statistical sciences with a towering stature, and filled with traits of humanity like gentleness, kindness, humbleness and gratitude. His contributions to theory and applications of survey sampling are unparalleled, especially his exceptional contributions to small area estimation for which during the Small Area Estimation 2017, 61<sup>st</sup> ISI World Statistics Congress Satellite Meeting held at Paris, Jon Rao was honoured with the Gold Medal Award. His path breaking contributions to the Official Statistics have been globally

acclaimed. Any amount of appreciation for his contributions towards advancement of statistical sciences and their innovative applications will never be enough to describe the impression he has made on this fraternity of statisticians. A valiant effort has been made to include an article in this special volume on Jon Rao ~ a living legend. The article brings at one place a list of publications of Jon Rao. The help received from Jon Rao in preparation of this article and the list of his publications is highly appreciated, acknowledged and recorded.

The response received for this special volume was remarkable. After the usual review process 23 research papers have been accepted for publication and are published in this volume. We would like to express our sincere thanks to all the authors for responding to our request. In fact, this volume has been possible because of the contribution from each one of them. The reviewers have also made a very big contribution by way of finishing the review process in a short span of time. We are indebted to all the reviewers and thank them profusely for their support. We would like to place on record our highest admirations for Dr. Alope Dey, Chair Editor, Dr. Rajender Parsad, Executive Editor and Dr. LM Bhar, Managing Editor, Statistics and Applications for their support and entrusting faith in the Guest Editors for bringing out this special issue in Honour of Jon Rao, an illusionary and visionary in Statistics and a wonderful human being. In fact the Guest Editors feel honored by the responsibility entrusted to them. The help received from Dr. Ranjit Paul and Dr. B.N. Mandal for bringing the papers in the format of the journal is highly appreciative.

The special volume contains a paper “Sample survey theory and methods: Past, present, and future directions” by J.N.K. Rao and W.A. Fuller. This paper was originally published in “Survey Methodology,” Statistics Canada, Catalogue No. 12-001-X, Vol. 43, No. 2 (2017) and is available at <http://www.statcan.gc.ca/pub/12-001-x/2017002/article/54888-eng.htm>. This paper has been reproduced and distributed here in this volume with the permission of Statistics Canada. The Guest Editors of the Special Volume, the Chair Editor and the entire Editorial Board of Statistics and Applications gratefully acknowledge the editor and the management board of Survey Methodology for their support.

It is hoped that the volume will sufficiently honour the much celebrated Jon Rao, an honour which he very richly deserves. We wish Jon Rao a long and healthy life so that the union of statisticians keep benefitting from the intelligence, knowledge, experience and wisdom of Jon Rao.

***Guest Editors***

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September 16, 2018