

A Report

On

15th Annual Conference of the Society of Statistics, Computer and Applications

(SSCA-2013)

On

“Advanced Developments and Applications in Statistical Sciences”

February 24-26, 2013



Organized by

Apaji Institute of Mathematics & Applied Computer Technology (AIM & ACT),

Banasthali University, Banasthali-304022, Rajasthan.

In the **First International Year of Statistics**, 2013 Apaji Institute of Mathematics and Applied Computer Technology, Banasthali Vidyapith had the honour to organize 15th Annual Conference (SSCA-2013) of the Society of Statistics, Computers and Applications on February 24-26, 2013. The theme of the conference was “Advanced Developments and Applications in Statistical Sciences”.

The **Society of Statistics, Computer and Applications** was founded in 1997 in Jat Vedic College, Baraut in the honour of **Late Prof. M.N. Das** on the occasion of felicitation of his 75th birthday. The society organizes annual conferences at different locations in India on different themes.



The **executive council meeting** of the society chaired by Prof. Alope Dey, preceded the inaugural function, and was held in Centre for Mathematical Sciences (CMS), Conference Room at 9 AM on February 24. The following members of society, Prof. V.K. Gupta, Prof.



Ashish Das, Dr. D. Roy Chaudhury, Dr. Rajendra Parsad, Dr. Alope Lahiri, Dr. Lal Mohan Bhar, Dr. Ramasubramanian V., organizing secretaries of the conference Dr. Piyush Kant Rai, Dept. of Mathematics & Statistics and Dr. Saurabh Mukherjee, Dept. of Computer Science, Banasthali Vidyapith participated in the meeting. There were 16 points on which decision has been taken and approved by the members.

The **inaugural ceremony** of the conference commenced with the lighting of lamp by Honourable Vice Chancellor Prof. Aditya Shastri, Prof. Alope Dey (ISI Delhi), Prof. V.K. Gupta (IASRI, New Delhi), Prof. G. N. Purohit (Dean, AIM & ACT and Convener of the Conference) and Prof. Sarla Pareek (Head, Department of Mathematics & Statistics and Coordinator of the Conference), followed by Saraswati Vandana recited by students of Vidyapith. All the esteemed delegates addressed the participants. Prof. Sarla Pareek formally welcomed all the esteemed experts and participants from all parts of the country. She mentioned that this conference is a result of two years long planning and discussions. In the end, she wished for the pleasant stay of all the delegates. Prof. G.N. Purohit provided details about the courses and significant student's intake in the Department of Mathematics & Statistics. Elaborating the theme of the conference he mentioned the relationship between Statistics and other sciences. He was overjoyed with the number of participation in the conference especially with the large number of M.Tech and M.Phil. students presentations. Prof. V.K. Gupta (Executive President, SSCA) also formally welcomed everyone and

expressed his thankfulness to the Vice Chancellor, Banasthali Vidyapith for his support in organizing this event. In his address the participants were made aware of the regular activities of the SSCA and invited everyone to be a part of SSCA. He also gave a vibrant elaboration of subject and its applications in diverse fields of knowledge. In his address, Honourable Vice Chancellor Prof. Aditya Shastri informed that Statistics is a very important aspect of Humanity in general and, Social Sciences and other Sciences in particular. He felt very elated with fact that members of the society have chosen Banasthali Vidyapith as the venue for conference this year. He wished for the grand success of the conference, though he was confident about it.



Lighting of Lamp



Prof. Aditya Shastri
(Vice Chancellor, Banasthali Vidyapith)



Saraswati Vandana

The inaugural function ended with the vote of thanks by Dr. Piyush Kant Rai, Organizing Secretary of the Conference.

The technical sessions started with initial **keynote address** by **Prof. Ashish Ghosh** from ISI,



Kolkata on the topic **“Introduction to soft computing: Issues and challenges”**. Describing the importance of soft computing, fuzzy logic, neural computing and evolutionary computing for solving real life problems, he gave an introduction to hard computing also.

The first **Dr. M.N. Das Memorial Lecture**, initiated this year only by the society was



delivered by **Prof. Alope Dey**, ISI, Delhi. The title of his talk was **“Efficiency factors for natural contrasts”**. He considered three level factorial experiments and introduced the concept of contrast in this experiment. This was the well attended and most appreciated lecture in the conference and audience gave a thumping ovation.

The **Plenary talk** of the conference was delivered by **Prof. V.K. Gupta**, IASRI Delhi on the topic **“Combinatorics in controlled sampling designs”**. Undoubtedly, he had a solid



balance between theoretical problem of combinatorial optimization and its incorporation in controlled sampling design. He also discussed the applications of combinatorics in survey sampling with special reference to controlled sampling.

There were **parallel sessions** for Computer applications as well as Statistics. The invited speakers in these sessions included giants such as, Dr. Sanjay Dwivedi, BBA Central University, Lucknow, Dr. Amit Chaturvedi, Govt. Engineering College, Ajmer, Rajasthan, in Computer Science, and Prof. P.C. Gupta, University of Rajasthan, Prof. Raj Srinivasan, University of Saskatchewan, Canada, Prof. Ashish Das, IIT, Mumbai, Prof. G.C. Tikkiwal, J.N.V. University, Jodhpur (Rajasthan), Dr. U.C. Sud, IASRI, New Delhi Dr. Lal Mohan Bhar, IASRI, New Delhi, Dr. Hukum Chandra, IASRI, New Delhi, Dr. D. Roy Chaudhury, IASRI, New Delhi, Prof. Sarla Pareek, Banasthali Vidyapith, Rajasthan in Statistics. These invited talks considered variety of problems on various social and challenging aspects besides providing the new paradigm of Computer Science and Statistics.



(Dr. Sanjay Dwivedi, Dr. Amit Chaturvedi, Prof. Raj Srinivasan, Prof. P.C. Gupta, Dr. D. Roy Chaudhury, Prof. Ashish Das)

Some of the topics included in these sessions are: Web-mining in indian language perspective; A review of the problem of estimation from incomplete frame; Calibration of linear estimators in T-classes; Financial education: An remittance impact on inclusive growth; Accuracy of the age data in indian census; Statistics and its mega misuse by in-expert hands; Small area estimation using estimated population level auxiliary data; Robustness of BIB design for multi-response experiment against loss of information, etc.



(Prof. Sarla Pareek, Dr. U.C. Sud, Prof. G.C. Tikkiwal, Dr. Hukum Chandra, Dr. Lal Mohan Bhar)

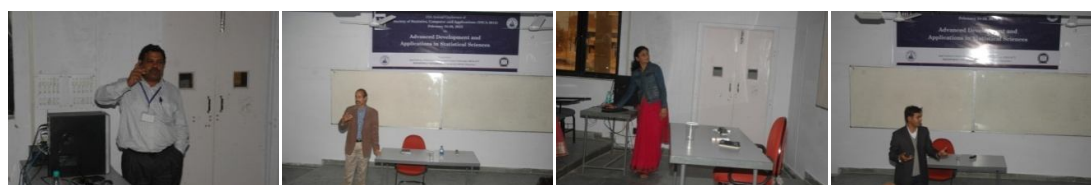
The theme of the conference was chosen to provide the information about the Advance developments and Applications in Statistical Sciences to the researchers, scholars and academicians from different parts of the India to learn and interact with the scholars of the

field. For this purpose two different **Symposia** were organized on the concerned topics of the conference to provide from basics to the latest research in the subjects. The symposia comprised of versatile topics such as Information Science, Digital Image Processing (In context of MIP), and Statistics in the Service of Humanity and to promote interdisciplinary researches in allied field of Statistical Sciences.



Symposia on "Information Science" & "Digital Image Processing": In Context of MIP
(Dr. Saiful Amin, Dr. C.K. Jha, Dr. Saurabh Mukherjee, Mr. Nisheeth Joshi, Mr. K.F. Rahman)

The eminent speakers took care of different aspects of these subjects for example: Next generation internet protocol, Meta-data harvesting from divergent resources: Issues and challenges, Machine translation in Indian context, Principles of medical image processing, Agricultural Statistics in welfare of society, Actuarial Science: An emerging branch of Statistics, Class of biased estimators in the presence of multicollinearity, SICURE model in small area estimation, etc.



Symposia on "Statistics in the Service of Humanity"
(Dr. Rajendra Prasad, Dr. Yashbir Singh, Dr. Shalini Chandra, Dr. Piyush Kant Rai)

A number of **parallel Contributory and Poster presentation sessions** were organized. In all, around 400 participants were distributed in 10 parallel contributory paper presentation sessions and 17 parallel poster presentation sessions, in which 40 oral papers and 104 posters were presented by the external participants, the faculty members, research scholars and students of this university, in the entire duration of the conference. These sessions covered a number of broadly classified topics from various disciplines. A few among these included Efficient Block Designs for Mixed Level Factorial Microarray Experiments Based on Baseline Parameterization, A Series of Neighbour Balanced Polycross Designs, Small Area Hierarchical Bayes Estimates in Context with Spatial Data, Nonparametric Tests for Independence, Class of Distribution Free Tests for Independence Against Positive Quadrant Dependence, A Generalized Class of Estimator in the Presence of Measurement Errors,

On the reliability estimation of the Burr type XII distribution, Some competing estimators in the presence of multicollinearity under restrictions, A Study of a Simple Finite Capacity Markovian Queueing System Subjected to Varying Catastrophic Intensity with Restoration, Stochastic Models of Reproduction: A Recapitulation, Comparative Study of CAI and Conventional Method in Attaining Algebra at Undergraduate Level, Comparative Study of Assessment of Tsunami Using Remote Sensing Techniques, Role of Artificial Neural Network in Cancer Detection, Multimedia Conferencing in Distance Education, etc.

The most important feature of the conference was the best poster presentation session award, decided by a panel of internal and external judges comprising Dr. L.M. Bhar, Dr. Hukum Chandra, Dr. M.J.S. Khan and Dr. Saiful Amin. The jury members decided to award the different positions corresponding to each poster presentation session because of very large number of poster presentations.

Fifteenth general body meeting of the Society of Statistics, Computer and Applications was held on 25th February 2013 at 5.00 pm under the chairmanship of Prof. Aloke Dey. It was decided to bring out a special issue of the Journal in honor of Late Prof. M.N. Das. The President invited the members to submit the papers presented during the conference for publication in the Journal. The papers would be published in the Journal after the usual review process. The President of the society, Dr. V. K. Gupta read out a draft, expressing gratitude to the excellent arrangements in all aspects of conference, made by Banasthali Vidyapith for organizing the mega conference. The draft was approved after incorporating suggestions made by the members of General Body.

Apart from the important activities, a few social events including a conference dinner and a cultural eve were also organized by the organizers during the conference.

The conference came to an end with the **valedictory function**. It was requested by some members that the paper presented in the conference may be published. **Prof. Aloke Dey** said that the conference was well organized and has put a challenge for the organizers of upcoming conferences to maintain the same standards. Dr. V.K. Gupta was much impressed by the large participation of the students in the conference from Vidyapith. It was for the first time in the history of the society that such a large group of researchers, scholars and academia participated in the conference. They were amazed by the blend of aesthetic ambience and academic environment of Banasthali. In his words “I have no hesitation in

saying that this was the best conference among the 15 conferences organized so far. The conference was rich in content, timeliness was the major thing and the hospitality was best. The conference was well thought of, well organized and executed. The environment of the campus was something which has left a mark on our heart and mind. The cultural programme, the conference dinner, the visit to the campus and the exposure to some of the beautiful things in the campus were all wonderful". Dr. D. Roy Choudhary, Secretary, SSCA was also much impressed and expressed his greetings to the organizers as well as to the whole family of the Vidyapith. On the behalf of the society, Dr. V.K. Gupta handed over the draft for expressing gratitude which was prepared by him for the honorable vice-chancellor of Vidyapith to Prof. G.N. Purohit, Convener of the conference. Prof. Purohit read out the draft before the house and expressed thanks to society for giving an opportunity to Banasthali Vidyapith to organize this event. Prof. Sarla Pareek, invited the participants from internal and external to share their experiences regarding the conference. She expressed vote of thanks to the organizers, participants, students of Vidyapith and faculty members of the department of computer science, mathematics and statistics, technicians and to all those, who were directly or indirectly connected with the conference.



Prof. G.N. Purohit



Views of Participants



Prof. Sarla Pareek

Some Glimpses of the Conference
(Contributory and Poster Presentation Sessions, Group Photographs, Cultural Evening & Dinner)

