

PREFACE

We are pleased to present the special proceedings of the twenty-sixth annual conference of the Society of Statistics, Computer, and Applications (SSCA), organized by Department of Mathematics and Statistics and the Centre for Artificial Intelligence, Banasthali Vidyapith, Banasthali – 304022, Rajasthan, India, during February 26-28, 2024. This conference was a key component of the broader international event focused on “Emerging Trends of Statistical Sciences in AI and its Applications, ETSSAA-2024”.

Founded in 1998 with its inaugural gathering at Haryana Agricultural University, Hisar, SSCA has consistently organized annual conferences across various educational institutions nationwide. The society’s core mission focuses on fostering research at the intersection of Statistics and Information Technology, serving both theoretical and applied statisticians committed to advancing technology for societal progress. SSCA also promotes open access to knowledge through its journal ‘Statistics and Applications,’ facilitating free downloads, saving, and printing of full-length papers. In addition to regular issues, the journal periodically releases special volumes addressing globally and nationally significant thematic areas.

The recent 26th conference aimed to provide a unified platform for deliberations on regional and global statistical issues. Distinguished experts in theoretical and applied statistics from India and abroad, notably from the USA, actively engaged in dissemination of knowledge. Speakers represented prestigious Indian institutions such as the Indian Statistical Institute, IITs, ICAR, RBI, senior governmental offices, and universities. The conference featured several noteworthy events, including a preconference workshop and various technical sessions. These sessions encompassed the M.N. Das Memorial Lecture and a dedicated session on Financial Statistics, where distinguished statisticians and leading practitioners in the field shared their insights on various finance related topics. Moreover, the conference included three endowment lectures: the B.K. Kale Memorial Endowment Lecture, J.K. Ghosh Memorial Endowment Lecture, and Bikas Kumar Sinha Endowment Lecture. These lectures were delivered by speakers closely associated with, or collaborated with, or students of the respective honourees. Additionally, there was the V.K. Gupta Endowment Award Lecture for Achievements in Statistical Sciences and Practice, delivered by J. Sunil Rao from USA. The SSCA introduced this year the Aditya Shastri Memorial Lecture in memory of Late Aditya Shastri, Vice Chancellor, Banasthali Vidyapith who left for heavenly abode in 2021 due to COVID - 19. The first lecture was delivered by Navin M. Shastri.

The Executive Council of SSCA resolved to compile “Special Proceedings,” highlighting selected presentations, including those from the specialized Financial Statistics session. The Guest Editors appointed by the Council—V.K. Gupta, Baidya Nath Mandal, R. Vishnu Vardhan, Ranjit Kumar Paul, Rajender Parsad, and Dipak

Roy Choudhury—meticulously curated these proceedings. While constraints limited the inclusion of all invited papers, esteemed speakers were invited to submit their research contributions. Following a rigorous review process, a distinguished selection of 12 papers was accepted for publication in the special proceedings. We extend our sincere gratefulness to all the authors for prompt submission of high-quality research papers for special proceedings. We owe special debt to all the reviewers whose dedicated efforts ensured a swift and thorough review process that led to completing the review process within a short time frame. Special acknowledgment is also due to all members and office bearers of the SSCA-Executive Council for their steadfast support. Our gratitude to Ashish Das, Treasurer of the SSCA, for arranging funds for publishing these special proceedings. We are indeed grateful to Ms. Jyoti Gangwani for meticulously formatting the papers. Furthermore, our deepest appreciation goes to Prof. Ina Aditya Shastri, Vice Chancellor of Banasthali Vidyapith, and her dedicated team, including Prof. Anshuman Shastri, Director of the Centre for Artificial Intelligence, Prof. Sarla Pareek, Dean of the Faculty of Mathematics and Computing, Prof. Shalini Chandra, Head of the Department of Mathematics and Statistics, and other esteemed faculty members. Their collective efforts are a testament to the success of this intellectually enriching SSCA conference and advancing the field of Statistics and its applications in AI. The special proceedings of these sessions have been assigned the ISBN #: 978-81-950383-5-0.

We are confident that the contents encapsulated within these special proceedings will prove immensely beneficial to our readership, fostering further insights and advancements in the field of Statistics and its applications in AI and beyond. We welcome any suggestions for further improving future conferences and special proceedings, as we continually strive to serve the statistical community better.

*V.K. Gupta
Baidya Nath Mandal
R. Vishnu Vardhan
Ranjit Kumar Paul
Rajender Parsad
Dipak Roy Choudhury*

New Delhi
September 2024