Preface

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Biographical notes: S. Sundar is a Professor of Mathematics at the Indian Institute of Technology Madras, Chennai India. He is an Associate Editor, *International Journal of Advances in Engineering Sciences*, an editorial board member, *Journal Indian Academy of Mathematics and Applied Mathematics*, Distinguished Alumni of TU Kaiserslautern, Germany and is on the Program Advisory Committee (Mathematical Sciences), Department of Science and Technology India. His areas of research include numerics for PDEs,

mathematical modelling and numerical simulation. He has a number of publications in reputed journals, has guided many PhD students, has organised several conferences and workshops and has delivered invited talks in various institutions both in India and other countries.

K.G. Subramanian was with the Faculty of the Department of Mathematics, Madras Christian College, Chennai, India from 1970 to 2006. He was a Visiting Professor at the Universiti Sains Malaysia from 2007 to 2015. His main areas of research include theory and applications of formal languages, combinatorics on words and biologically motivated computing models. He has many publications in reputed journals. Currently, he is UGC (India) Emeritus Fellow (2016–2018) at the Madras Christian College.

Bharati Rajan was with the Faculty of the Department of Mathematics, Loyola College, Chennai, India from 1980 to 2010. She was awarded the Emeritus Fellowship in 2011. She is actively engaged in research and is editing special issues of journals. She is an approved Supervisor for Research in Bharathiar University, Coimbatore, India. Her main areas of research include graph theory and univalent functions. She has a good number of publications in reputed journals and has travelled wide for conferences and invited talks.

Indra Rajasingh is a Professor of Mathematics in Vellore Institute of Technology, Chennai, India. Her research areas are graph theory and theoretical computer science. She has 40 years of teaching experience and has guided 20 scholars for their PhD degree. She is a recipient of Excellence Award in Mathematics conferred by International Multidisciplinary Research Foundation, Thailand Chapter. She has been the convener of nine international conferences. She is a guest editor for *Journal of Discrete Algorithms, Mathematics in Computer Science and International Journal of Pure and Applied Mathematics (IJPAM)*.

Sr. Jasintha Quadras is the Principal of Stella Maris College (Autonomous), Chennai, India and also belongs to the Faculty of Mathematics of this college. Her research interests and specialisation focus on graph theory, in which she has several research publications in addition to supervisory work on several doctoral and MPhil theses. She is a member of several professional bodies, is a peer-team member coordinator of Accreditation Committees of the National Assessment and Accreditation Council, a member of the Academic Council, Senate and Board of Research Studies, University of Madras, and UGC nominee on several national-level committees. She has spearheaded several academic and administrative reforms in the college, and is on the advisory board of several institutions in the area of autonomy. She is the Vice President, Asia, of the International Federation of Catholic Universities (IFCU).

Felbin C. Kennedy is on the Faculty of Mathematics, Stella Maris College, Chennai, India since 1992. She is currently the Dean, Academic Affairs of the college. Her research areas are fuzzy analysis, fuzzy operational research, and fuzzy soft set theory. She has a fundamental work with 355 citations in fuzzy normed linear space published in fuzzy sets and systems and there are works based on fuzzy normed linear space of the Felbin's type. She is on the Governing Council, International Forum for Interdisciplinary Mathematics (FIM) since 2012, and is the current Elected Secretary of FIM. She was a member of the Academic Council, University of Madras and is also a PhD Supervisor.

An International Conference on Applicable Mathematics (ICAM 2016) was organised during November 30–December 1, 2016, by the Department of Mathematics, Stella Maris College, Chennai, India, which is a reputed autonomous institution of higher education for women and is affiliated to the University of Madras. The conference provided a broad forum for researchers in different fields of Mathematics to present their work related to the rich applicability of the mathematical techniques in a variety of problem areas.

This special issue on 'Recent Trends in Applicable Mathematics' in the *International Journal of Artificial Intelligence and Soft Computing*, is one of the two special issues of the conference ICAM 2016. This special issue, which had an open call, consists of four papers from a selection of papers presented in ICAM 2016 and another paper, in total five papers, all of which have been accepted after having undergone reviews according to the journal procedure and standards.

The paper by Samuel and Abisha proposes a novel cryptosystem based on a grammar system that was developed in the field of formal language theory for modelling the syntactic aspects of the blackboard model of problem solving. The authors Sivakumar and Alaraj make use of notions in fuzzy and rough set theory to deal with the problem of path management strategy in the context of mobile ad hoc network. The authors Kalyani et al. develop a mathematical model for handling picture arrays in the area of two-dimensional formal language theory, based on theoretical notions in the recent yet fast-growing field of membrane computing. The paper by Arivudainambi and Mahalingam proposes a queueing model in discussing a single server retrial queueing system. Based on the concept of jumping finite automaton, recently introduced in the literature for formalising discontinuous information processing adequately, the final paper by Immanuel and Thomas extends this concept to describe two-dimensional languages.

The Guest Editors of this special issue acknowledge with gratitude the Editor in Chief: Prof. Atulya K. Nagar for his ready consent to bring out a special issue in this journal, of the conference ICAM 2016 and for his continuous guidance. The guest editors also thank the journal team, especially, the journal manager Liz Harris, for excellent support in bringing out this special issue. The guest editors also acknowledge the valuable contributions of the reviewers in providing timely reviews of the papers and the authors for their articles to this special issue.