Editorial

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Biographical notes: Snehashish Chakraverty is a Professor of Mathematics, National Institute of Technology Rourkela, India. Earlier he was with CSIR-CBRI, Roorkee, India. He received his PhD from IIT Roorkee in 1992 and did postdoctoral research at ISVR, University of Southampton, UK and at Concordia University, Canada. He was a Visiting Professor at Concordia and McGill universities, Canada (1997 to 1999) and currently a Visiting Professor of Johannesburg University, South Africa. He has published four books and 180 papers in journals/conferences. His recent awards include Platinum Jubilee ISCA Lecture (2014), INSA Int. Bilateral Exchange (2010–2011), CSIR Young Scientist (1997), BOYSCAST Fellowship, and UCOST YS (2007, 2008).

For various scientific and engineering problems, it is an important issue how to deal with variables and parameters of uncertain value. Generally, the parameters are taken as constant/crisp for simplifying the problem. But, actually there are incomplete information about the variables being a result of errors in measurement, observations, experiment, applying different operating conditions or it may be maintenance induced error, etc. Rather than the particular value, only the vague, imprecise and incomplete information about the parameter is present which is called the uncertain information. Rather than the particular value of the material properties or parameters we may have only the imprecise bounds of the values. These may be handled by taking the parameters in terms of interval (Moore) and/or fuzzy (Zadeh). Recently, investigations are carried out by various researchers throughout the globe by using the uncertainty of the material properties or parameters. The corresponding problem will become then uncertain and the analysis and solution would require then careful application of the methods. Recently, the soft computing methods have come as a relief to handle such problems. In order to have the idea of handling the uncertainty in the physical problems, present journal may give a new direction to take the challenge.

This journal represents a critical turning point because it may demonstrate how the most current, advanced and revolutionary mathematical and computational techniques can be put to effective use in uncertainty, interval and fuzzy analysis.

The objectives of this international journal are to establish an effective channel of communication among academic, research institutions and persons concerned with the complex role of uncertain nature of different real life problems. This needs a solid research in the theoretical and experimental aspects related to fuzzy sets theory, fuzzy logic and systems and interval computing. It also aims to promote and coordinate developments in the field of fuzzy and other hybrid machine intelligence procedures. The international dimension is emphasised in order to overcome national barriers and to meet the needs of accelerating science and technological developments in the said subject area.

This journal will help to promote a unified rapid communication for the advances in the development and practice of fuzzy system technologies and interval modelling in the areas of science, engineering, management, medical, economic, environmental, social science problems and other related fields.

IJFCM is an attempt to bring together the faculties, scientists, engineers and technologists from various fields of science and engineering to discuss and learn the recent trends, usefulness and challenges of mathematics of uncertainty in general and fuzzy and interval-based uncertainty modelling in particular. After the inception of this new journal, a very good number of research papers pertaining to multi-disciplinary expertise presenting the spirit, challenge and strength of uncertainty (fuzzy and interval) modelling have been received on the themes of various fields of science and engineering. After peer reviewing by the well-known learned reviewers, the papers as reported in this issue are accepted.

On behalf of all the editorial and advisory board members, I would like to thank all researchers in the field of fuzzy computation and modelling who had submitted their scholarly work for this inaugural issue. Although some of the papers were not accepted as per the comments of the reviewers and to keep the best standard of the journal. But I hope they will also submit their next findings to be considered for future issues. I am thankful to all the editors and the learned reviewers who supported the journal with their valuable suggestions and comments. The efforts of my team in particular to the Associate Editors viz. Professors Atma Sahu, Hend Dawood, Majid Amirfakhrian, Marek T. Malinowski and Tshilidzi Marwala are greatly appreciated. I am also indebted to Professor S.K. Sarangi, Director, National Institute of Technology Rourkela for his continuous support and encouragement to work on it.

Although we are very happy to start this new journal and to have the inaugural issue but on the other hand we became very sorry after hearing the sad news of Professor Elie Sanchez, who passed away on March 6, 2014. He was one of our advisory board members. Professor Elie Sanchez was a pioneer not only in France but he will be remembered throughout the globe for fuzzy relation equations and on theoretical advances on fuzzy set theory. As such we would like to *dedicate this inaugural issue to his memory*.

Finally, I express my sincere thanks to the reputed publisher viz. Inderscience Publishers and its team who provided me the opportunity, help and suggestions while acting as Editor-in-Chief for this international journal.