Foreword

R.R. Yager

Ronald R. Yager[1]
Iona College, New Rochelle, NY 10801, USA,
E-mail: yager@panix.com.

Here we are celebrating the fiftieth anniversary of Lotfi Zadeh's pioneering paper Fuzzy Sets that appeared in Information and Control in 1965. While the paper was clear, direct and easy to understand the ideas presented were revolutionary and ground breaking. This article now has close to sixty thousand citations as noted in Google Scholar. Clarity and simplicity are the hallmark of the writing of Zadeh. This has always reminded me of the writings of Sigmund Freud. One rarely needs to draw on complex mathematics to read Zadeh's papers.

The capacity of fuzzy sets to represent and manage imprecise linguistic concepts has proven to be of great use in the modern technological world where there is now a great interest in building intelligent systems that can model human reasoning but take advantage of the vast amount of information available on the Internet. If the idea of fuzzy sets was not introduced in Zadeh's ground breaking paper in the 1960's it would have naturally arisen in early 2000's as we moved into intelligent systems. However the early reception of fuzzy sets was not very promising both the Artificial Intelligence community and the probabilistic community were very dubious of the worth of this new field. Interestingly a number of researchers from Romania, the home of this journal, were among the early supporters of ideas presented by Zadeh. Zadeh persevered in the face of adversity, describing himself as thick skinned, until mid 1980's when the Japanese engineers provided significant applications of fuzzy sets in control systems. Particularly notable among these applications was the use of fuzzy control to the Sendai subway. These applications brought a new appreciation to the possibilities of fuzzy sets and clearly changed its history.

The editors of this Special Issue of the International Journal of Computers Communications & Control dedicated to the 50th anniversary of the publication of Lotfi Zadeh's pioneering paper Fuzzy Sets have provided a collection of papers representative of the current state of the field of fuzzy sets. Included in this issue are papers investigating some current theoretical issues and applied papers in domains in which fuzzy sets has introduced some benefits.

The editorial team is to be congratulated for providing a wonderful anniversary gift to Professor Zadeh and a useful collection of articles for the community.

Ronald R. Yager
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[1]Editor's note: "Ronald R. Yager is Professor of Information Systems and Director of the Machine Intelligence Institute at Iona College. He is among the world's most highly cited researchers with over 47,000 citations (updated by editor) to his work in Google Scholar. He is editor and chief of the International Journal of Intelligent Systems and serves on the editorial board of numerous journals. He has published over 500 papers and edited over 30 books in areas related to fuzzy sets, human behavioral modeling, decision-making under uncertainty and the fusion of information. He was the recipient of the IEEE Computational Intelligence Society Pioneer award in Fuzzy Systems. He received the special honorary medal of the 50-th Anniversary of the Polish Academy of Sciences. He received the Lifetime Outstanding Achievement Award from International the Fuzzy Systems Association. He received honorary doctorate degrees, honoris causa, from the Azerbaijan Technical University and the State University of Information Technologies, Sofia Bulgaria. Dr. Yager is a fellow of the IEEE, the New York Academy of Sciences and the Fuzzy Systems Association. He has served at the National Science Foundation as program director in the Information Sciences program. He was a NASA/Stanford visiting fellow and a research associate at the University of California, Berkeley. He has been a lecturer at NATO Advanced Study Institutes. He received his undergraduate degree from the City College of New York and his Ph. D. from the Polytechnic Institute New York University." Source: http://www.iona.edu retrieved on 2th October 2015.