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(founder and editor)

The Encyclopedia of Neutrosophic Researchers

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Foreword

This is the first volume of the *Encyclopedia of Neutrosophic Researchers*, edited from materials offered by the authors who responded to the editor's invitation.

The authors are listed alphabetically.

The introduction contains a short history of neutrosophics, together with links to the main papers and books.

Neutrosophic set, neutrosophic logic, neutrosophic probability, neutrosophic statistics, neutrosophic measure, neutrosophic precalculus, neutrosophic calculus and so on are gaining significant attention in solving many real life problems that involve uncertainty, impreciseness, vagueness, incompleteness, inconsistent, and indeterminacy.

In the past years the fields of neutrosophics have been extended and applied in various fields, such as: artificial intelligence, data mining, soft computing, decision making in incomplete / indeterminate / inconsistent information systems, image processing, computational modelling, robotics, medical diagnosis, biomedical engineering, investment problems, economic forecasting, social science, humanistic and practical achievements.

The authors, who have published neutrosophic papers, books, or defended neutrosophic master theses or PhD dissertations and are not included in this volume, are kindly invited to send their CV, a photo, and a list of neutrosophic publications to fsmarandache@gmail.com and neutrosophy@laposte.net to be part of the second volume.

Prof. Florentin Smarandache, Ph D
University of New Mexico
http://fs.gallup.unm.edu/neutrosophy.htm
President of The Neutrosophic Science International Association
History of Neutrosophic Theory and its Applications

Zadeh introduced the *degree of membership/truth* (t) in 1965 and defined the fuzzy set.

Atanassov introduced the *degree of nonmembership/falsehood* (f) in 1986 and defined the intuitionistic fuzzy set.

Smarandache introduced the *degree of indeterminacy/neutrality* (i) as independent component in 1995 (published in 1998) and defined the neutrosophic set on three components (t, i, f) = (truth, indeterminacy, falsehood):

http://fs.gallup.unm.edu/FlorentinSmarandache.htm.

**Etymology.** The words “neutrosophy” and “neutrosophic” were coined/invented by F. Smarandache in his 1998 book.

**Neutrosophy:** A branch of philosophy, introduced by F. Smarandache in 1980, which studies the origin, nature, and scope of neutralities, as well as their interactions with different ideational spectra.

Neutrosophy considers a proposition, theory, event, concept, or entity, "A" in relation to its opposite, "Anti-A" and that which is not A, "Non-A", and that which is neither "A" nor "Anti-A", denoted by "Neut-A".

Neutrosophy is the basis of neutrosophic logic, neutrosophic probability, neutrosophic set, and neutrosophic statistics.


**Neutrosophic Logic** is a general framework for unification of many existing logics, such as fuzzy logic (especially intuitionistic fuzzy logic), paraconsistent logic, intuitionistic logic, etc. The main idea of NL is to characterize each logical statement in a 3D-Neutrosophic Space, where each dimension of the space represents respectively the truth (T), the falsehood (F), and the indeterminacy (I) of the statement under consideration, where T, I, F are standard or non-standard real subsets of \([0, 1]\) with not necessarily any connection between them.

For software engineering proposals the classical unit interval \([0, 1]\) may be used.
T, I, F are independent components, leaving room for incomplete information (when their superior sum < 1), paraconsistent and contradictory information (when the superior sum > 1), or complete information (sum of components = 1).

For software engineering proposals the classical unit interval [0, 1] is used.

For single valued neutrosophic logic, the sum of the components is:

- \(0 \leq t+i+f \leq 3\) when all three components are independent;
- \(0 \leq t+i+f \leq 2\) when two components are dependent, while the third one is independent from them;
- \(0 \leq t+i+f \leq 1\) when all three components are dependent.

When three or two of the components T, I, F are independent, one leaves room for incomplete information (sum < 1), paraconsistent and contradictory information (sum > 1), or complete information (sum = 1).

If all three components T, I, F are dependent, then similarly one leaves room for incomplete information (sum < 1), or complete information (sum = 1).

In general, the sum of two components x and y that vary in the unitary interval [0, 1] is:

\(0 \leq x + y \leq 2 - d°(x, y)\), where \(d°(x, y)\) is the degree of dependence between x and y, while \(d°(x, y)\) is the degree of independence between x and y.

In 2013 Smarandache refined the neutrosophic set to n components:

\((T_1, T_2, ..., I_1, I_2, ..., F_1, F_2, ...);\)


**The Most Important Books and Papers in the Development of Neutrosophics**

1995-1998 – Smarandache generalizes the dialectics to neutrosophy;
   introduces the neutrosophic set/logic/probability/statistics;
   introduces the single-valued neutrosophic set (pp. 7-8);
2002 – introduces special types of sets / probabilities / statistics / logics, such as:
- intuitionistic set, paraconsistent set, faillibilist set, paradoxist set, pseudo-paradoxist set, tautological set, nihilist set, dialetheist set, trivialist set;
- intuitionistic probability and statistics, paraconsistent probability and statistics, faillibilist probability and statistics, paradoxist probability and statistics, pseudo-paradoxist probability and statistics, tautological probability and statistics, nihilist probability and statistics, dialetheist probability and statistics, trivialist probability and statistics;
- paradoxist logic (or paradoxism), pseudo-paradoxist logic (or pseudo-paradoxism), tautological logic (or tautologism);  

2003 – introduction of neutrosophic numbers \((a+bI, \text{ where } I = \text{indeterminacy})\)
2003 – introduction of \(I\)-neutrosophic algebraic structures
2003 – introduction to neutrosophic cognitive maps

2005 - introduction of interval neutrosophic set/logic

2006 – introduction of degree of dependence and degree of independence between the neutrosophic components \(T, I, F\)

2007 – The Neutrosophic Set was extended [Smarandache, 2007] to Neutrosophic Overset (when some neutrosophic component is > 1), since he observed that, for example, an employee working overtime deserves a degree of membership > 1, with respect to an employee that only works regular full-time and whose degree of membership = 1;
and to Neutrosophic Underset (when some neutrosophic component is < 0), since, for example, an employee making more damage than benefit to his company deserves a degree of membership < 0, with respect to an employee that produces benefit to the company and has the degree of membership > 0;

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and to and to Neutrosophic Offset (when some neutrosophic components are off the interval [0, 1], i.e. some neutrosophic component > 1 and some neutrosophic component < 0).

Then, similarly, the Neutrosophic Logic / Measure / Probability / Statistics etc. were extended to respectively Neutrosophic Over-/Under-/Off- Logic, Measure, Probability, Statistics etc.

http://fs.gallup.unm.edu/SVNeutrosophicOverset-JMI.pdf

2007 – Smarandache introduced the Neutrosophic Tripolar Set and Neutrosophic Multipolar Set, and consequently – the Neutrosophic Tripolar Graph and Neutrosophic Multipolar Graph

http://fs.gallup.unm.edu/ebook-neutrosophics6.pdf (p. 93)
http://fs.gallup.unm.edu/IFS-generalized.pdf

2009 – introduction of N-norm and N-conorm

http://fs.gallup.unm.edu/N-normN-conorm.pdf

2013 - development of neutrosophic probability (chance that an event occurs, indeterminate chance of occurrence, chance that the event does not occur)

http://fs.gallup.unm.edu/NeutrosophicMeasureIntegralProbability.pdf

2013 - refinement of components (T₁, T₂, ...; I₁, I₂, ...; F₁, F₂, ...)

http://fs.gallup.unm.edu/n-ValuedNeutrosophicLogic.pdf

2014 – introduction of the law of included multiple middle (<A>; <neut1A>, <neut2A>, ...; <antiA>)

http://fs.gallup.unm.edu/LawIncludedMultiple-Middle.pdf

2014 - development of neutrosophic statistics (indeterminacy is introduced into classical statistics with respect to the sample/population, or with respect to the individuals that only partially belong to a sample/population)

http://fs.gallup.unm.edu/NeutrosophicStatistics.pdf
2015 - introduction of neutrosophic precalculus and neutrosophic calculus
http://fs.gallup.unm.edu/NeutrosophicPrecalculusCalculus.pdf

2015 – refined neutrosophic numbers \((a + b_1I_1 + b_2I_2 + \ldots + b_nI_n)\), where \(I_1, I_2, \ldots, I_n\) are subindeterminacies of indeterminacy \(I\);

2015 – \((t,i,f)\)-neutrosophic graphs;


2015 – Introduction of the subindeterminacies of the form \(I_0^n = \frac{k}{0}\), for \(k \in \{0, 1, 2, \ldots, n-1\}\), into the ring of modulo integers \(Z_n\) - called natural neutrosophic indeterminacies [Vasantha-Smarandache]
http://fs.gallup.unm.edu/MODNeutrosophicNumbers.pdf

2015 – Introduction of neutrosophic triplet structures and \(m\)-valued refined neutrosophic triplet structures [Smarandache - Ali]

Submit papers on neutrosophic set/logic/probability/statistics to the international journal “Neutrosophic Sets and Systems”, to the editor-in-chief: smarand@unm.edu (see http://fs.gallup.unm.edu/NSS).
Dr.

Nassim Abbas

Researcher

Affiliation
Communicating and Intelligent System Engineering Laboratory
Faculty of Electronics and Computer Science
University of Sciences and Technology Houari Boumediene
BP. 32, El Alia, Bab Ezzouar, 16111, Algiers / ALGERIA

Profile


Research Interests

feature generation; machine learning; evidence theory; plausible and paradoxical reasoning theory; neutrosophic theory and its applications for target identification, document analysis, multimodal biometric verification, satellite images classification and fusion.

List of Publications in Neutrosophics

Dr.

A. A. A. Agboola

Mathematics Lecturer

Affiliation
Department of Mathematics
Federal University of Agriculture
Abeokuta / NIGERIA

Profile

Graduated from the University of Lagos, Nigeria, with BSc, MSc and PhD in Mathematics. Mathematics Lecturer in the Department of Mathematics, Federal University of Agriculture, Abeokuta, Nigeria for over two decades. Complete name: Agboola Adesina Abdul Akeem.

Research Interests

linear and multilinear algebra; functional analysis; fuzzy sets; fuzzy algebraic structures; algebraic hyperstructures; neutrosophy; neutrosophic sets; neutrosophic algebraic structures; neutrosophic algebraic hyperstructures.

Neutrosophic Research

His neutrosophic researches are focused on neutrosophic vector and hypervector spaces, neutrosophic groups, neutrosophic hypergroups, neutrosophic rings, neutrosophic nearrings, neutrosophic BCI/BCK algebras and refined neutrosophic algebraic structures. Currently working on neutrosophic quadruple algebraic structures.

List of Publications in Neutrosophics


Mumtaz Ali
Associate Editor-in-Chief
of Neutrosophic Sets and Systems

Profile

Research Interests
neutrosophic set and logic; complex neutrosophic set and logic; hybrid structures of neutrosophic set; fuzzy set and logic; soft computing; decision support systems; machine learning; data mining; algebraic structures based on neutrosophic set; neutrosophic triplet algebraic structures; algebraic coding theory; soft set theory; clustering problems.
List of Publications in Neutrosophics


Books


Chapters in Books


Submitted Papers


**Prof. Dr. Abdul Quaiyum Ansari**

**Affiliation**
Department of Electrical Engineering  
Faculty of Engineering and Technology  
Jamia Millia Islamia  
New Delhi – 110025 / INDIA

**Profile**

B.Tech from AMU, Aligarh, M.Tech and PhD from IIT Delhi and JMI, New Delhi, respectively. Professor in the Department of Electrical Engineering at Jamia Millia Islamia, New Delhi. Also served as Professor and Head, Department of Computer Science and as Dean, Faculty of Management Studies and Information Technology at Hamdard University, New Delhi.

Having completed three R & D Major Research Projects, he has got hands on experience of providing consultancy to one of the leading system integration companies of India, ONNYX Electronics, dealing in installation and maintenance of Traffic Signals in major cities of the country.

Successfully guided 12 PhDs and 15 M. Tech. dissertations, and has produced excellent results with proven records through two patent applications, 52 Peer Reviewed International Journal papers, one book each written and edited, 5 Book Chapters, and 90 Peer Reviewed International Conference papers, and has worked as Guest Editor of many International Journals.

Senior Member of IEEE, Fellow and Chartered Engineer of the Institution of Engineers and IETE.

Recipient of the Rajarambapu Patil National Award for Promising Engineering Teacher for Creative Work Done in Technical Education for the year 2011, awarded by the Indian Society for Technical Education, New Delhi, which is a testimony to the fact that he is a person with excellent experience in Policy Planning in Education, Curriculum Development, Human Resource Management, and Innovative Design of Motivational Techniques.
Neutrosophic Research

His contributions are known in the areas of Networks-on-Chip, VLSI, Microwave antenna, Fuzzy Logic and its variants, like Intuitionistic fuzzy logic and Neutrosophic logic. His mathematical formulations for the “Fuzzification of Intuitionistic Fuzzy Sets” have been widely appreciated. In the Neutrosophic Logic, area Prof. Ansari has worked for Neutrosophic classifiers and Neutrosophic modeling and control.

Research Interests

electronic communications; electronic devices; traffic signals.

List of Publications in Neutrosophics


http://dx.doi.org/10.1016/j.asoc.2012.08.002


Ahmed Metwalli Anter  
*Lecturer Assistant*

*Affiliation*  
Faculty of Computers and Informatics  
Benisuef University / EGYPT

**Profile**

Lecturer Assistant at Benisuef University (Egypt), Jazan University (Saudi Arabia). Supervision of graduation projects for Computer Science students and Quality Performance System for the Educational Process. Over than 20 scientific publications in high quality journals and international conferences, and book chapters. Reviewer for various international journals and conferences. Founding members of the Scientific Research Group in Egypt (SRGE). Successful solutions for various clients using open source, LAMP environment (Linux Apache MySQL Python), NoSQL, Microsoft .Net, Unix, Linux, Windows (MFC, ATL), Web Programming. Experience in the field of medical information systems (PIS, RIS, DICOM, PACS, LIS, HL7,...).

**Research Interests**

databases administration; object oriented programming; systems analysis; technical writing documentation; security web-based strategies; user interface design; quality assurance.

**List of Publications in Neutrosophics**


Submitted Papers


Dr.

**Swati Aggarwal**  
*Assistant Professor*

**Affiliation**  
Computer Engineering Department  
Netaji Subhas Institute of Technology  
University of Delhi  
Dwarka, Delhi / INDIA

**Profile**

PhD from University Jamia Millia Islamia, New Delhi. More than 14 years of teaching experience and 8 years of research experience. Published (or contributed to) many quality papers in referred journals and presented in various international conferences. Currently working as Assistant Professor at Netaji Subhas Institute of Technology, affiliated to the University of Delhi, India.

**Research Interests**

neutrosophic logic; fuzzy sets; artificial intelligence; neural network; soft computing based techniques; machine learning.

**List of Publications in Neutrosophics**

**Book Chapter**


**Journals**


International Conferences

Kanika, Swati Aggarwal. Experimenting with Neutrosophic Ontologies for medical data classification. IEEE Workshop on Computational Intelligence (IEEE WCI 2015) (14th -17th Dec,15), hosted by IIT Kanpur.

Megha, Swati Aggarwal. An ensemble design of Rough sets with Neutrosophic relational maps for handling uncertainty. 12th IEEE India International Conference, 2015 (INDICON 2015), (17th -20th Dec,15), hosted by Jamia Millia Islamia, New Delhi, India.

Kanika, Swati Aggarwal. Multi-attribute data classification using neutrosophic probability. 12th IEEE India International Conference, 2015 (INDICON 2015), (17th -20th Dec,15), hosted by Jamia Millia Islamia, New Delhi, India.


National Conferences


Special talks / lectures given

Lecture by Swati Aggarwal on “Neutrosophic Classifier: An Extension of Fuzzy Classifier” to Text Analysis and Machine learning Group at University of Ottawa, Canada on 8th June 2015.

Webinar by Swati Aggarwal on " A perspective shift from Fuzzy logic to Neutrosophic Logic", (https://youtu.be/WryVUv5Bq98).

Third position secured in the 2015 Webinar Competition for Students and Professionals organized by IEEE-CIS (Computational Intelligence Society).
Dr.

Meena Arora
Associate Professor

Affiliation
CSE Department
JSS Academy of Technical Education
Noida / INDIA

Profile

PhD in Computer science & engineering with the topic “Neutrosophic searching techniques”. Associate Professor at JSS Academy of Technical education, Noida, U.P, India. Two decades of teaching experience in academic field. Published books on relational database management systems. Member of IAENG and IACSIT professional bodies.

Research Interests

relational database management systems; artificial intelligence; data structures; information systems.

List of Publications in Neutrosophics

Papers


Conferences


Meena Arora, Ranjit Biswas. Deployment of Neutrosophic Technology to retrieve answers for queries posed in Natural Language. 3rd IEEE International conference on Computer science and Information Technology ICCSIT 2010. DOI: 10.1109/ICCSIT.2010 5564125
Durga Banerjee

PhD Student
Assistant Teacher of Mathematics

Affiliation
Department of Mathematics
Jadavpur University
Raja S.C. Mallick Rd, Kolkata
West Bengal – 700032 / INDIA

Profile

Bachelor of Science in Mathematics in 2003 from the University of Kalyani and Master of Science in Mathematics in 2005 from the Jadavpur University, West Bengal, India. NET conducted by CSIR-UGC in December, 2009. Pursuing Doctoral degree from the Department of Mathematics, Jadavpur University, Kolkata, India, under the supervision of Prof. Dr. Bibhas C. Giri and Dr. Surapati Pramanik, with the research topic “Decision Making in an Uncertain Environment”.

Neutrosophic Research

Contributed two research papers on neutrosophic related studies. She is an innovative researcher in decision making and optimization in uncertain environment namely, fuzzy, stochastic and neutrosophic environment. She has been serving as a reviewer.

Pramanik, Banerjee and Giri (Pramanik et al. 2016a) studied ‘Multi – criteria group decision making model in neutrosophic refined set and its application’. Pramanik, Banerjee and Giri (Pramanik et al. 2016b) developed a paper studying TOPSIS approach for multi attribute group decision making in refined neutrosophic environment.

Research Interests

neutrosophic multi criteria making; refined set; neutrosophic numbers; neutrosophic cubic sets.
List of Publications in Neutrosophics


Sameh H. Basha
PhD Student, Lecturer Assistant

Affiliation
Computer Science Division
Mathematics Department
Faculty of Science, Cairo University
Giza / EGYPT

Profile

BSc in mathematics and computer science from the Faculty of Science, Cairo University, in 2005. Master degree in Computer Sciences from Cairo University, with the thesis “Complexity Analysis of Input Rules for Genetic - Fuzzy Data Mining”, in 2011. Currently, PhD Student under the supervision of Prof. Aboul Ella Hassanien (Cairo University, Faculty of Computers and Information, Information Technology Department), Prof. Laila Fahmie and Dr. Areeg Saied (Cairo University, Faculty of Science, Mathematics Department), having as subject the neutrosophic set and its applications. Member of Scientific Research Group in Egypt (SRGE).

Research Interests

soft computing (fuzzy logic and genetic algorithm); rough set, neutrosophis set and neutrosophic logic; data mining.

List of Publications in Neutrosophics


Dr.

Tanushree Mitra Basu
Research Scholar

Affiliation
Department of Applied Mathematics
Vidyasagar University
Midnapore, West Bengal, 721102 / INDIA

Profile

Research scholar in the Department of Applied Mathematics in Vidyasagar University, India. Graduation, post graduation and BEd from Visva-Bharati University, in 2003, 2005 and 2006 respectively. Completed her PhD from Vidyasagar University, in 2013.

Neutrosophic Research

Currently looking forward to develop Neutrosophic Theory in the parlance of Soft Set Theory. Interested in various aspects of algebra and analysis in the ground of neutrosophic soft set theory and its implementation in solving real life decision making problems.

Research Interests

soft set theory; neutrosophics.

List of Publications in Neutrosophics

Prof. Dr. Sc.
Romualdas Bausys

Affiliation
Vilnius Gediminas Technical University
Saulėtekio al. 11, 10223 Vilnius / LITHUANIA

Profile
Born in Vilnius, Lithuania, in 1958. Received the doctoral degree in technical sciences (PhD) in 1989 and the degree of Doctor of Sciences from Vilnius Gediminas Technical University in 2000. Professor (since 2001) at Vilnius Gediminas Technical University. Head of the Department of Graphical Systems, Fundamental Sciences Faculty (VGTU). Published over 80 research articles and 7 textbooks.

Research Interests
multimedia processing; numerical methods; operational research methods; decision support systems; multi-criteria decision making.

List of Publications in Neutrosophics


Pranab Biswas
PhD Student, Assistant Teacher of Mathematics

Affiliation
Department of Mathematics
Jadavpur University
Raja S.C. Mallick Rd, Kolkata
West Bengal – 700032 / INDIA

Profile

Bachelor of Science in Mathematics in 2003 and MSc in Mathematics in 2005, both from the University of Kalyani, West Bengal, India. Junior Research Fellow-NET (JRF-NET) conducted by CSIR-UGC in December, 2008. Doctoral candidate at Department of Mathematics, Jadavpur University, Kolkata, India, since 2014, under supervision of Prof. Dr. Bibhas C. Giri and Dr. Surapati Pramanik, with the research topic “Decision Making in Neutrosophic Environment”.

Neutrosophic Research

He has contributed five important research papers on neutrosophic related studies to peer reviewed journals, such as “Neural Computing and Applications” or the international neutrosophic journal “Neutrosophic Sets and Systems”. He is an innovative researcher in decision making and optimization in uncertain environment namely, fuzzy, intuitionistic and neutrosophic environment. Biswas, Pramanik and Giri (Biswas et al. 2014a) studied neutrosophic grey relational coefficient and established entropy based modified grey relational analysis (GRA) method to solve for multi attribute decision making (MADM) problem. The same authors (Biswas et al. 2014b) introduced single-valued neutrosophic multiple attribute decision-making problem with incompletely known or completely unknown attribute weight information based on modified GRA. Also, the authors (Biswas et al. 2015a) studied cosine similarity measure based multiple attribute decision-making with trapezoidal fuzzy neutrosophic numbers, and proved expected value theorem for trapezoidal fuzzy neutrosophic numbers. Further on, they (Biswas et al., 2015b) developed a paper studying new TOPSIS-based approach for...
multi-attribute group decision making under simplified neutrosophic environment. Finally, they (Pramanik et al., 2015) have developed another paper studying hybrid vector similarity measures and weighted hybrid vector similarity measures for both single valued and interval valued neutrosophic sets and proved some of their basic properties.

Research Interests

neutrosophic multi criteria making; aggregation operators; soft-computing; pattern recognitions; neutrosophic hybrid systems.

List of Publications in Neutrosophics


Conferences (presentation)

P. Biswas, S. Pramanik, & B. C. Giri, TOPSIS method for multi-attribute decision making using neutrosophic number. International Conference on Nonlinear Dynamics, Analysis, and Optimization of Frontiers of Mathematical Sciences with Applications (ICNDAO 2015), December 9-11, Department of Mathematics, Jadavpur University, Kolkata.

P. Biswas, P. Dey, S. Pramanik, Grey relational analysis method for single valued neutrosophic multi attribute decision making, National Conference on Non-linear Dynamics, Analysis and Optimization (NADO 2014), December 9-10, Department of Mathematics, Jadavpur University, Kolkata.
Dr.

Said Broumi

Affiliation
Laboratory of Information Processing
University Hassan II, B.P 7955, Sidi Othman
Casablanca / MOROCCO

Profile

Born in Casablanca, Morocco in 1978. MSc in Industrial Automatic from Hassan II University Ainchok, Casablanca. PhD from the University Hassan II, Casablanca.

Research Interests

neutrosophic graph theory; fuzzy theory; intuitionistic fuzzy theory; soft set theory; neutrosophic soft set theory; neutrosophic decision making problem.

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Dr.

Emilia Calefariu

Profile


List of Publications in Neutrosophics

Prof. Dr.

Gavrilă Calefariu

Affiliation
Economic Engineering and Production Systems
Department
University Transilvania of Brașov
B-dul Eroilor, nr 29, Brașov, 2200 / ROMANIA

Profile

PhD from the University Transilvania of Brașov, 1997. Worked as Maintenance engineer at Electroprecizia Săcele (1981 – 1983), then Researcher, Assistant Professor, Lecturer, Professor (from 2002) at the University Transilvania of Brașov. PhD supervisor at the same University since 2010, in Engineering and Management doctoral field. Founder of laboratory of Robotics and CNC machine tools (1987), director of the research center of Machines and Production Systems (2005), director of the research center of Advanced Production Technology and Systems (2010). Member of the International Association of Paradoxism, of the International Association of Neutrosophic Science, of the Romanian Association of Unconventional Technologies (ARTN), of the Academic Society of managers in Romania (SAMRO), of the Association managers and engineers economists in Romania (AMIER); founding member of Leaders of Activities Association and PhD Excellence in Engineering Business Management (ACADEMICA); member of the Scientific committee of International Conference on Economic Engineering and Manufacturing Systems (ICEEMS); member of the Scientific committee of International Conference on Manufacturing Systems (ICMaS). Published over 100 articles and 12 books.

List of Publications in Neutrosophics

Amarjit Chanda

Research Scholar

Affiliation
Department of Mathematics
Tripura University
Tripura, 799022 / INDIA

Profile

Working in the field of Fuzzy Clustering since 2013 with special interest in Information Fusion and Neutrosophic Clustering and their application in the field of image processing, human activity pattern problem etc.

Research Interests

fuzzy set; clustering; neutrosophic set; pattern recognition.

List of Publications in Neutrosophics


Sharmistha Bhattacharya (Halder), Amarjit Chanda. A Study on Relational based Image Clustering. Communicated

Amarjit Chanda. Clustering Using Similarity Measure For Interval Valued Neutrosophic Soft Set. Communicated

Sharmistha Bhattacharya (Halder), Amarjit Chanda. A Survey On Fuzzy Clustering. Communicated
Rajashi Chatterjee
Research Scholar

Profile
Born in 1988, Burdwan District, West Bengal, India. Completed Bachelor of Science in 2009, with Mathematics as core subject. Awarded Master of Science in Pure Mathematics in 2011. Currently working as a research scholar in the Department of Mathematics, Visva-Bharati, India.

Research Interests
single valued neutrosophic multisets; distance and similarity measures between two single valued neutrosophic multisets; inclusion measures; entropy measures; quadripartitioned single valued neutrosophic sets; multi-attribute decision making methods.

List of Publications in Neutrosophics


Shyamal Dalapati

*PhD candidate, Assistant teacher*

Affiliation
Department of Mathematics
Indian Institute of Engineering Science and Technology
Shibpur, 711103, West Bengal / INDIA

Profile

Bachelor of Science in Mathematics in 2011 and Master of Science in Mathematics from the Jadavpur University, West Bengal, India, in 2013. Pursuing PhD in Mathematics at the Indian Institute of Engineering Science and Technology, Shibpur, under the guidance of Dr. Shariful Alam and Dr. Surapati Pramanik, with the research called “Some Studies on Neutrosophic Decision Making”.

Neutrosophic Research

He has defined generalized neutrosophic soft weighted average operator to aggregate all individual opinions. He also developed multi-attribute group decision making (MAGDM) problems in generalized neutrosophic soft based on grey relational analysis. He presented papers in mathematics seminars in the field of neutrosophic decision making.

Research Interests

neutrosophic multi attribute group decision making; neutrosophic hybrid systems; neutrosophic soft multi criteria decision making.

List of Publications in Neutrosophics


International Seminar (presentation)


National seminar (presentation)

Dr. Luu Quoc Dat

Lecturer

Affiliation
Faculty of Development Economics
VNU University of Economics and Business
144 Xuan Thuy Str, Cau Giay Dist
Hanoi / VIETNAM

Profile

Bachelor in Political Economics, Faculty of Economics of Vietnam Nation University, Hanoi (2003-2007). Master in International Business of Administration, Southern Taiwan University of Technology (2007-2009). PhD program in Industrial Management, National Taiwan University of Science and Technology (2009-2013). Post-doctoral Fellow at Industrial Management department, National Taiwan University of Science and Technology (2013-2014). Research of “Center for Internet of Things Innovation”, National Taiwan University of Science and Technology (2011-2013), Researcher (Post-doctoral Fellow), Industrial Management department, National Taiwan University of Science and Technology (2013-2014), Researcher at Vietnam Institute for Advanced Study in Mathematics (2016).

Research Interests

fuzzy set theory; ranking fuzzy numbers; fuzzy multi-criteria decision making (MCDM); supply chain management; logistic management; renewable energy.

List of Publications in Neutrosophics

Chapters in Books


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 1st Volume
International Journal Articles


Yu, V.F., Kuo, C.W., Dat, L.Q. (2014). Selection of key component vendor from the aspects of capability, productivity, and reliability. Mathematical Problems in Engineering, Article ID 124652, 1-7. [SCI].


**Domestic Journal Articles (in Vietnamese)**

Dat, L.Q., Dung, C.C., Dung, H.T., Men, D.T., Ha, V.N. Developing a model to evaluate lecturer performance. Journal of the Asia Pacific Economics, ISSN 0868-3808, 6/2015

**International Conferences Papers**


**Domestic Conferences Papers**


**Working Papers**


Mithun Datta

Researcher

Affiliation
Department of Mathematics
Tripura University
Tripura, 799022 / INDIA

Research Interests

fuzzy sets, soft sets, neutrosophic sets, neutrosophic soft sets, interval valued neutrosophic soft sets, generalized neutrosophic sets.

List of Publications in Neutrosophics


Dr.
Partha Pratim Dey
Assistant teacher

Affiliation
Department of Mathematics
Jadavpur University
188, Raja S.C. Mallick Rd,
Kolkata 700032, West Bengal / INDIA

Profile
Bachelor of Science in Mathematics in 2003 and MSc in Mathematics from the University of Kalyani, West Bengal, India, in 2005. PhD in Science from Jadavpur University, Kolkata, India, in 2015. His paper together with Dr. Surapati Pramanik was awarded best paper in West Bengal State Science and Technology Congress in Mathematics (2011).

Neutrosophic Research
He has contributed six significant research papers on neutrosophic related studies to peer reviewed journals such as “Neutrosophic Sets and Systems”, “Journal of New Theory”, “Critical Review”, “Journal of New Results in Science”. He is a dynamic researcher in optimization and decision making in uncertain environment namely, fuzzy, intuitionistic and neutrosophic environment.

Dey, Pramanik and Giri (Dey et al. 2015a) proposed an extended grey relational analysis (GRA) based interval neutrosophic multi-attribute decision making (MADM) for weaver selection in Khadi Institution. The same authors (Pramanik et al. 2015b) have developed technique for Order Preference by Similarity to Ideal Solution (TOPSIS) method for solving single valued neutrosophic soft expert based MADM problems. The same authors (Dey et al. 2015c) formulated a new mathematical model to generalized neutrosophic multi-attribute group decision making (MAGDM) problems based on TOPSIS technique. The same authors (Dey et al. 2016a) have studied GRA method for solving neutrosophic soft
MAGDM problems involving multiple decision makers. The same authors (Dey et al. 2016b) have investigated an extended GRA technique for MADM problems under interval neutrosophic uncertain linguistic setting where the information about attribute weights is partially known or completely unknown to the decision makers. In the same study, the same authors (Dey et al. 2016b) have defined Euclidean distance between two interval neutrosophic uncertain linguistic variables. The same authors (Dey et al. 2016c) have presented a new approach for neutrosophic soft MADM problems through grey relational projection method with unknown weight information of the choice parameters.

Research Interests

neutrosophic multi attribute group decision making; neutrosophic hybrid systems; neutrosophic optimization; neutrosophic soft multi attribute decision making.

List of Publications in Neutrosophics


*International Conference (presentation)*

Partha Pratim Dey, S. Pramanik, B. C. Giri. 2015. TOPSIS for solving multi-attribute decision making problems under bi-polar neutrosophic environment. Intl Conference on Nonlinear Dynamics, Analysis and Optimization of Frontiers of Mathematical Sciences with Applications (ICNDAO 2015), December 9-11, Department of Mathematics, Jadavpur University, Kolkata, India.
Dr.

Irfan Deli

Affiliation
Muallim Rıfat Faculty of Education
Kilis 7 Aralık University
79000 Kilis / TURKEY

Profile

Born 06.04.1986. PhD from Gaziosmanpaşa Üniversitesi.

List of Publications in Neutrosophics


S. Broumi, I. Deli, F. Smarandache. N-valued Interval Neutrosophic Sets and Their Application in Medical


Dr.

Ashit Kumar Dutta
Associate Professor

Affiliation
Department of Computer Science
Alquwayiya College of Science and Humanities
Shaqra University
Shaqra / SAUDI ARABIA

List of Publications in Neutrosophics


Dr.
Azeddine Elhassouny

Affiliation
Department of Software Engineering
ENSIAS - National High School of IT and systems analysis
Mohammed V University in Rabat
BP 713 Agdal Rabat / MOROCCO

Profile
Joined ENSIAS - National High School of IT and systems analysis at Mohammed V University in Rabat Morocco in 2014. MS and PhD in mathematics, computer science and applications (in 2008 and 2013, respectively).

Research Interests
neutrosophics; fusion theory; multiple criteria decision making (MCDM); multimedia signal processing; image and video recovery and compression, indexing and retrieval; computer vision; pattern recognition; classification; machine learning.

List of Publications in Neutrosophics

Azeddine Elhassouny, Florentin Smarandache. Neutrosophic simplified TOPSIS. ENSIAS, Mohammed V University In Rabat, Morocco; University of New Mexico, United States, IEEE WCCI 2016, Vancouver, Canada.
Mohamed Abd Elfattah

PhD candidate

Affiliation
Mansoura University / EGYPT

Profile

PhD student in Computer science at Mansoura University, Egypt. Working in document analysis field.

Neutrosophic Research

Applied neutrosophic theory to degraded historical documents imaging. The input RGB image is transformed into the NS domain, which is described using three subsets, namely the percentage of truth in a subset, the percentage of indeterminacy in a subset, and the percentage of falsity in a subset. The entropy in NS is employed to evaluate the indeterminacy with a $\lambda$-mean operation used to minimize indeterminacy. Finally, the historical document image is binarized using an adaptive thresholding technique. Experimental results demonstrated that the proposed approach is able to select appropriate image thresholds automatically and effectively, while it is shown to be less sensitive to noise and to perform better compared with other binarization algorithms.

List of Publications in Neutrosophics

Amin, Khalid M., M. Abd Elfattah, Aboul Ella Hassanien, and Gerald Schaefer. A binarization algorithm for historical arabic manuscript images using a neutrosophic approach. 9th International Conference on Computer Engineering and Systems (ICCES), pp. 266-270. IEEE, 2014

Shaimaa M. Elnazer
PhD candidate

Affiliation
Mansoura University / EGYPT

Profile


List of Publications in Neutrosophics

- Shaima Elnazer. Video Based License Plate Detection Algorithm, November 2011. (IEEE)
Ahmed Kuder Essa
Al-Jubouri

*Electrical Engineering*

*Affiliation*
Faculty of Basic Education
Telafer University
Mosul / IRAQ

**Profile**


**Neutrosophic Research**

Interested in neutrosophic logic and having innovative ideas to improve the mathematical tools, working to construct the duality theory for neutrosophic geometric programming, put some topological diagrams for partial metric space in neutrosophic calculus.

**Research Interests**

neutrosophic logic; neutrosophic geometric programming; neutrosophic relation equations; fuzzy relation equations; fuzzy geometric programming; geometric programming; applied geometric programming in electrical power engineering.

**List of Publications in Neutrosophics**


WORKS IN PROGRESS

Essa, A. K., Khalid, H. E. Neutrosophic Precalculus and Neutrosophic Calculus (translating from English to Arabic).

Essa, A. K., Khalid, H. E. A review on neutrosophic pre-calculus and neutrosophic calculus.


SEMINARS

Selim Eraslan

Affiliation
Kırıkkale University
Kırıkkale Vocational School
71450 Yahşihan, Kırıkkale / TURKEY

List of Publications in Neutrosophics

Articles

Deli İrfan, Eraslan Selim, Çağman Naim, (2016). ivnpiv-Neutrosophic soft sets and their decision making based on similarity measure, Neural Computing & Applications, 27(6), 30-40. ISSN 0941-0643 [SCI-Expanded]


Papers


Dr. Mohammadreza Faraji
Postdoctoral researcher

Affiliation
Department of Computer Science
Utah State University
Logan, UT 84322-4205 / USA

Profile
PhD in computer science from Department of Computer Science at Utah State University. MSc in Social Economics Systems Engineering from Amirkabir University of Technology of Tehran. Published several notable articles in highly-ranked computer science journals: among these the journals Neurocomputing, IET Computer Vision, IEEE Signal Processing Letters and Applied Soft Computing. More than 60 citations to the articles on his Google Scholar profile.

Neutrosophic Research
Proposed a new cluster validity index, called Exponential Compactness and Separation (ECAS) index. This index ensures that the clusters are homogenous with respects to their included data while also being heterogeneous with respects to other clusters. Dr. Faraji’s ECAS index uses an exponential function, thereby generating a more robust set of clusters. Another innovation is his method for creating a type-2 fuzzy logic system based on an indirect approach. This approach was made possible through the strength of his ECAS index, and, as a type-2 system, exhibited a greatly enhanced ability to handle uncertainty. Finally, to demonstrate the effectiveness of his type-2 fuzzy logic system, Dr. Faraji applied his system to predict carbon monoxide concentrations in the air of Tehran, for which it proved to be highly accurate. In addition, he expanded the idea to solve the face recognition problem by using the neutrosophic set-based approach (the expanded version of the fuzzy set) to evaluate the truth, falsity, and indeterminacy of each data set and therefore simultaneously remove noise and enhance facial features in the original face image to achieve impressive face recognition accuracy.
Research Interests

image processing; computer vision; fuzzy systems; neutrosophic systems.
**Dr. Daniela Gîfu**

*Researcher  Associate professor*

**Affiliation**
Faculty of Computer Science
“Alexandru Ioan Cuza” University
Bd. Carol I no. 11, 700506, Iasi / ROMANIA

**Profile**

Researcher in the NLP-Group@UAIC-FII, Faculty of Computer Science, (UAIC), Romania, associate professor at the same university, and affiliated scientific researcher at the Center for Advanced Research in Applied Informatics, University of Craiova, Romania. PhD in Philosophy (2010), with a theme related to Communication (a study of the symbolic violence in the political discourse).

Following a very successful research stage in the Faculty of Computer Science, Mrs. Gîfu pursues her investigations in the direction of the neutrosophic elements in discourse, but this time from a computational linguistics perspective. Postdoctoral research in 2013 at UAIC, both of them centered on the study of public discourses (political and journalistic). As such, she decided to pursue a second PhD, in Computer Science, in cotutelle: Romanian Academy and "Alexandru Ioan Cuza" University of Iasi, Romania.

(Co-)authored several books (13) and journal articles (dozens) indexed by ISI Web of Science, ELSEVIER, SPRINGER, DBLP, etc., and more than 60 conference papers, many of them focused on problems of neutrosophics and semantic analysis. Member of the organizing committees of the 18th international events, and member of the scientific programme committees of the 17th international events such as IJCAI, EUROLAN, ConsILR, LREC, RoCHI, RUMOUR, ICOSST, MFOI, ACIIDS, FTRA AIM, etc. and has reviewed for numerous journals (Society of Electronics and Computer Engineering Journal, CEITJ, Avanti Publishers, Social Sciences and Educational Research Review, etc.). In this context, she is invited as keynote speaker or moderator in international conferences as ICOSST, FIT, ConsILR, MFOI, RUMOUR, etc.
Research Interests

paradoxism; neutrosophics; natural language processing; semantic relations; discourse analysis; text categorization; sentiment analysis; lexical semantics in text processing; machine learning.

List of Publications in Neutrosophics

PAPERS (selective)


BOOK CHAPTERS (selective):


BOOK REVIEWS (selective):

Dr.

Yanhui Guo
Assistant professor

Affiliation
Department of Computer Science
University of Illinois at Springfield
One University Plaza, Springfield
Illinois 62703-5407 / USA

Profile

BS in Automatic Control from Zhengzhou University, China. MS in Pattern Recognition and Intelligence System from Harbin Institute of Technology, China. PhD in the Department of Computer Science, Utah State University, USA. Currently, assistant professor in the Department of Computer Science at the University of Illinois at Springfield. Published more than 50 journal papers and 19 top conference papers, completed 11 grant funded research projects by 2015, and worked as an associate editor of international journals, reviewers for top journals and conferences.

Neutrosophic Research

Firstly applied neutrosophic set into image processing research area in 2008 and published many research works based on neutrosophic set, such as image denoising, speckle reduction, segmentation, thresholding, medical image segmentation and detection, computer aided detection and diagnosis, feature extraction, and data clustering and classification.

Research Interests

image processing; machine learning; computer aided detection/diagnosis; big data analytics; neutrosophic theory.
List of Publications in Neutrosophics

Papers


Conference Papers


Dr.
Savita Gupta
Professor

Affiliation
Computer Science & Engineering
University Institute of Engineering & Technology
Panjab University, Chandigarh / INDIA

Profile
B.Tech from TITS, Bhiwani (Haryana), in 1992. ME from TIET, Patiala, Punjab, in 1998, both in computer science and engineering. PhD in 2007 in the field of Medical Image Processing. Teaching since 1992. Published more than 90 papers in refereed International Journals and conference proceedings. Presently, working as Professor in the Department of CSE, University Institute of Engg. & Technology, Panjab University, Chandigarh. Completed various research projects funded by various agencies like DST, AICTE and MHRD.

Neutrosophic Research
Published four research papers utilizing neutrosophic theory in medical image processing.

Research Interests
medical image processing; wavelet based image compression and denoising; network security; wireless sensor networks; cognitive enhancement.

List of Publications in Neutrosophics


Dr.

Nasruddin Hassan
Associate professor

Affiliation
School of Mathematical Sciences
Faculty of Science and Technology
Universiti Kebangsaan Malaysia
Bangi 43600 Selangor DE / MALAYSIA

Profile

BSc in Mathematics from Western Illinois University USA. MSc in Applied Mathematics from Western Michigan University USA. PhD degree in Applied Mathematics from Universiti Putra Malaysia. Currently, Associate Professor at the School of Mathematical Sciences at University Kebangsaan Malaysia.

Research Interests

decision making; operations research; fuzzy sets; numerical convergence.

List of Publications in Neutrosophics

Ibrahim Mohammed Hezam Al-Mishanah
PhD candidate

Affiliation
Department of Computer Education
Faculty of Education
Ibb University, Ibb city / YEMEN

Profile
BSc in Education with Major in Mathematics, with a Cumulative Grade of Distinction with Honors (91.75 %) from College of Education, Al-Nadirah, Ibb University, Yemen. Pre-Master courses of Pure Math (2009) from Math. Department, Faculty of Science, Helwan university, Cairo, Egypt. MSc in Operations Research from the Department of Mathematics, Faculty of Science, Helwan University, Cairo, Egypt (2011). Since 2012, PhD student in Operations Research and Decision Support Department - Faculty of Computers and Information, Menofia University, Egypt. Since 2004, Assistant Teacher (Demonstrator) in Mathematics Department, College of Education, Al-Nadirah, IBB University, Yemen.

List of Publications in Neutrosophics


Dr.

Alice Ionescu
Lecturer

Affiliation
University of Craiova
13-15 A.I.Cuza Street
Craiova, 200585 / ROMANIA

Profile

Senior lecturer PhD in the Department of Romance and Classical Languages at The Faculty of Letters, University of Craiova. Teaching French Linguistics, French Grammar and French Language Skills for the translators. Published her doctoral thesis *Modalisateurs illocutoires et argumentation* in 2008 and a booklet in the area of French linguistics: *Exercices de pragmatique et de linguistique textuelle* in 2011, two French manuals and about 40 papers in the field of Linguistics and French as a Foreign Language.

Research Interests

discourse analysis; contrastive grammar; pragmatics and text linguistics; neutrosophic applications on natural languages logic; argumentation and press communication.

List of Publications in Neutrosophics


J. Martina Jency
PhD Scholar

Affiliation
Nirmala College for Women
Coimbatore – 641018
Tamilnadu / INDIA

Profile
Assistant Professor for Dhanalakshmi Srinivasan College of Engineering (2011-12) and at Coimbatore Institute of Engineering and Technology (2012-15). Currently concentrating on her research work (PhD Scholar in Mathematics, Nirmala College for Women, Coimbatore, Tamilnadu, India).

List of Publications in Neutrosophics


J. Martina Jency. Adjustable and mean potentiality approach on decision making, Neutrosophic sets and system, Vol. 11, 2016, 12-20

J. Martina Jency. Application of fuzzy neutrosophic relation in decision making. (Communicated)
Dr.

Huda Esmail Khalid
Esmail Al-Jumaily

Lecturer

Affiliation
Department of Mathematics
College of Basic Education
Telafer University / IRAQ

Profile


Research Interests

neutrosophic logic; neutrosophic geometric programming; fuzzy neutrosophic relation equations; fuzzy geometric programming; general geometric programming; applied of geometric programming; geometric programming; fuzzy relation equations.
List of Publications in Neutrosophics

Papers


Unpublished Works

Khalid, H. E., Essa, A. K. Neutrosophic Precalculus and Neutrosophic Calculus, by F. Smarandache (translating from English to Arabic).

Essa, A. K., Khalid, H. E. A review on neutrosophic pre-calculus and neutrosophic calculus, offprint.


Seminars


Fuzzy Geometric Programming (2015), Dep. of Math., College of Science, Al-Mustansiriya University

Fuzzy Relation Equations with (max-min) operator (2012), Dep. of Math., College of Basic Education / Telafer, Mosul University
Sensitivity Analysis in Geometric Programming Problems (2009),
Dep. of Math., College of Computer Science and Mathematics, Mosul University
Dr.

Faruk Karaaslan

Assistant professor

Affiliation
Department of Mathematics
Faculty of Sciences
Çankırı Karatekin University
18100, Çankırı / TURKEY

Profile

MSc (2007) and PhD (2013) from Department of Mathematics, Faculty of Art and Sciences, Gaziosmanpaşa University (Turkey). Currently, assistant professor in Department of Mathematics, Faculty of Sciences, Çankırı Karatekin University, Turkey. Referee of many international journals.

Neutrosophic Research

Published several papers on neutrosophic soft sets, possibility neutrosophic soft sets, single valued neutrosophic soft set and single valued neutrosophic refined soft set in various international refereed journals. Also studied the similarity measure and correlation coefficient of single valued neutrosophic soft set.

Research Interests

algebra; fuzzy set theory; soft set theory; neutrosophic set theory; decision making.

List of Publications in Neutrosophics


F. Karaaslan. Similarity measure between possibility neutrosophic soft sets and its applications. (Accepted)
Dr.

Serkan Karatas

Affiliation
Department of Mathematics
Ordu University – 52200 / TURKEY

Profile


Research Interests

fuzzy sets; classical and fuzzy logic; many-valued logic; fuzzy measure methods; measure of fuzziness; soft topology; soft function; soft point.

List of Publications in Neutrosophics

Papers

S. Karatas and N. Çağman. Fuzzy measure methods and between relationships, SAÜ Fen Bilimleri Enstitüsü Dergisi, 9(2) (2005)


E. Set, S. Karatas, İ. Mumcu. Fuzzy Ostrowski type inequalities for (m)−convex functions, J. of New Theory, 6 (2015), 54-65


S. Karatas and C. Kuru, A note on neutrosophic topology, (Submitted)

S. Karatas and İ. Deli, On neutrosophic soft topological spaces, (Submitted)

Symposiums and Conferences

N. Çağman and S. Karatas, Bulanıklık ve Olasılık, IV. Ulusal Mantık Matematik ve Felsefe Sempozyumu, 2006 İzmir-Foça
N. Çağman, S. Karatas and F. Karaaslan, Sezgisel Bulanık Esnek Kümeler ve Aralarındaki Benzerlik Ölçümü, 2010 Kayseri


S. Karatas and N. Çağman, A new approach to intuitionistic fuzzy soft matrices, Karatekin Mathematics Days, 11-13 June 2014, Çankırı
Dr. Madad Khan

Affiliation
Department of Mathematics
COMSATS Institute of Information Technology
Abbottabad / PAKISTAN

Profile

Fields of Research
Bio Mathematics (Genetics); Fuzzy Mathematics (Fuzzy Logics & Foundation, Decision Analysis, Fuzzy Algebra), Computational Mathematics (Programing in GAP); Pure Mathematics (Semigroups, AG-groupoids).

Research Interests
fuzzy differential equations; fuzzy mathematics; bio mathematics; applied algebra; semigroups; left almost semigroups; fuzzy algebra; applications of non associative structure in genetics; group algorithm programing; soft sets and related soft computing models; mathematical theories for modeling uncertainty; decision analysis; data mining; rough sets; granular computing; computational intelligence.
List of Publications in Neutrosophics

**Papers**


**Books**

Madad Khan, F. Smarandache, Tariq Aziz. Fuzzy Abel Grassmann’s Groupoids, Educational Publisher, Columbus, Ohio, USA, 2015

Madad Khan, F. Smarandache, Saima Anis. Theory of Abel Grassmann’s Groupoids, Educational Publisher, Columbus, Ohio, USA, 2015
Qaisar Khan

PhD student

Affiliation
Department of Mathematics and Statistics
International Islamic University
Islamabad / PAKISTAN

Profile

Currently, PhD student at the International Islamic University Islamabad (Pakistan); supervisor: Dr. Tahir Mahmood.

Research Interests

similarities measures; pattern recognition; neutrosophic set; single valued neutrosophic set; interval neutrosophic set; neutrosophic cubic set; neutrosophic hesitant fuzzy set.

List of Publications in Neutrosophics

Dr. 
K. Kandasamy

Staunch Periyarist / INDIA

Profile

Till recently, worked as a guest professor in the Tamil Department of the University of Madras. Postgraduate MA degrees in Tamil Literature, Political Science, Saiva Siddhanta, Defence Studies, Education and History.

Research Interests

neutrosophy and uncertainty in Tamil society.

List of Publications in Neutrosophics


Prof. Dr.

W. B. Vasantha Kandasamy

http://www.vasantha.in/

Affiliation
Department of Mathematics
Indian Institute of Technology Madras
Chennai / INDIA

Profile

Professor in the Department of Mathematics, Indian Institute of Technology Madras, Chennai. Guided in the past decade 13 PhD scholars in the different fields of non-associative algebras, algebraic coding theory, transportation theory, fuzzy groups, and applications of fuzzy theory of the problems faced in chemical industries and cement industries. Also guided over 115 MSc and MTech projects.

Worked in collaboration projects with the Indian Space Research Organization and with the Tamil Nadu State AIDS Control Society. Presently working on a research project funded by the Board of Research in Nuclear Sciences, Government of India. Published 694 research papers. Authored over 100 books related to Neutrosophy.

On India’s 60th Independence Day, Dr. Vasantha was conferred the Kalpana Chawla Award for Courage and Daring Enterprise by the State Government of Tamil Nadu in recognition of her sustained fight for social justice in the Indian Institute of Technology (IIT) Madras and for her contribution to mathematics. The award, instituted in the memory of Indian-American astronaut Kalpana Chawla who died aboard Space Shuttle Columbia, carried a cash prize of five lakh rupees (the highest prize-money for any Indian award) and a gold medal.

Research Interests

neutrosophic numbers; neutrosophic mathematical modelling; neutrosophic algebra; algebraic structures; neutrosophic graph theory; fuzzy and neutrosophic models for societal research; natural neutrosophic numbers and MOD structures.
List of Publications in Neutrosophics


n-Linear Algebra of Type I and its Applications, (with Florentin Smarandache) pp. 120, Info Learn Quest, Ann Arbor, USA. ISBN: 1-59973-074-X.


Subset Groupoids, (with Florentin Smarandache) pp. 149, Educational Publisher Inc, Ohio, 2013. ISBN: 1-59973-222-0


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 1st Volume


Supriya Kar

Lecturer

Affiliation
Bidhan Chandra Institution for Girls
C.V. Raman Avenue, Durgapur
713205 West Bengal / INDIA

Profile

Lecturer in Mathematics at Bidhan Chandra Institution for Girls.

Research Interests

set theory; neutrosophic set theory

List of Publications in Neutrosophics

Application of Neutrosophic Set Theory in Generalized Assignment Problem, NSS, Vol. 9

Solution of Multi-Criteria Assignment Problem using Neutrosophic Set Theory, NSS, Vol. 10
Dalbinder Kour

PhD Student

Affiliation
National Institute of Technology
Durgapur, West Bengal / INDIA

Profile

Pursuing her PhD from National Institute of Technology, Durgapur, West Bengal, India. Part Time Lecturer in Michael Madhusudan Memorial College, Durgapur, West Bengal, India.

Research Interests

multi criteria decision making problems; fuzzy programming technique; transportation problems; triangular fuzzy number; intuitionistic fuzzy number; interval valued intuitionistic fuzzy number; neutrosophic set; interval valued neutrosophic set.

Neutrosophic Research

In “Application of Extended Fuzzy Programming Technique to a real life Transportation Problem in Neutrosophic environment”, the Neutrosophic Transportation Problem (NTP) is solved by two methods- FLP method and CLP method. The first method, FLP method gives the solution as crisp and then as Single Valued Neutrosophic Sets (SVNS) which represent the degree of acceptance, indeterminacy and rejection of the solution obtained from the defined membership function for a particular problem. The second method, i.e., CLP method gives the solution as crisp number only. Then the degree of the acceptance, indeterminacy and rejection is calculated. The FLP method can be seen as a better method and it gives more optimal solution. The SVNS data can represent real life uncertainties and so depicts more practical solutions of the problem as it helps to determine the degree of acceptance, indeterminacy and rejection of the obtained solution. A real life multi-objective and multi-index Neutrosophic transportation problem has also been solved other than the numerical example to illustrate the two proposed methods. The results
obtained are compared and the FLP method proves to give better solution compared to the CLP method for most of the circumstances. The solution obtained by the proposed approaches has not been compared with any of the existing approaches for NTPs, as no work has been done for neutrosophic transportation problem. It is a new type of problem. The application of the methods to a real life multi-objective and multi-index neutrosophic transportation problem is also a new field itself.

List of Publications in Neutrosophics

Dr. 

**Deepika Koundal**

*Research Scholar*

**Affiliation**

Computer Science & Engineering  
Panjab University, Chandigarh / INDIA

**Profile**

BTech in Computer Science & Engineering from Kurukshetra University, Kurukshetra, India. ME and PhD from University Institute of Engineering & Technology, Panjab University, Chandigarh, India. Published 12 research articles in reputed journals and conferences.

**Research Interests**

information retrieval; medical image processing.

**Neutrosophic Research**

Her doctoral research work is focused on the use of neutrosophic techniques for the development of computer-aided detection (CADx) system for the delineation of thyroid nodules in ultrasound images. This research work demonstrate the use of neutrosophic theory in medical image processing where the performance is observed to be much better. For CADx system, two Neutrosophic domain speckle reduction methods are proposed to improve clinical diagnosis and to enhance quality of ultrasound image by reduction of speckle noise. Variational methods based on Gamma and Nakagami distribution in the neutrosophic domain have been proposed for speckle reduction. Neutrosophic set takes into account the uncertainty in terms of truth-membership, indeterminacy membership and falsity-membership. Then, the filtering operation based on variational method is applied to reduce the indeterminacy of the image, which is measured by the entropy of an indeterminate set. The proposed speckle reduction method has been assessed on both the artificial speckle simulated images and real ultrasound images. Furthermore, neutrosophic based segmentation technique is proposed for automatic delineation of...
nODULES WITHOUT ANY HUMAN INTERVENTION. THIS AUTOMATED DELINEATION METHOD INTEGRATES SPATIAL INFORMATION WITH NEUTROSOPHIC CLUSTERING AND LEVEL-SETS FOR ACCURATE AND EFFECTIVE SEGMENTATION OF THYROID NODULES IN ULTRASOUND IMAGES. THE PROPOSED DELINEATION METHOD NAMED AS SPATIAL NEUTROSOPHIC DISTANCE REGULARIZED LEVEL SET IS BASED ON NEUTROSOPHIC L-MEANS CLUSTERING WHICH INCORPORATES SPATIAL INFORMATION FOR LEVEL SET EVOLUTION. THE SNDLRS TAKES ROUGH ESTIMATION OF REGION OF INTEREST AS INPUT PROVIDED BY SPATIAL NEUTROSOPHIC L-MEANS CLUSTERING FOR PRECISE DELINEATION OF ONE OR MORE NODULES.

LIST OF PUBLICATIONS IN NEUTROSOPHICS


Deepika Koundal, Savita Gupta, Sukhwinder Singh. Speckle Reduction filter in Neutrosophic domain, 2nd International Conference of Biomedical Engineering and Assisted Technologies (BEATS), 786-790, 2012

Dr.

K. Ilanthenral

Assistant Professor

Affiliation
School of Computer Science and Engg
VIT University, Vellore / INDIA

Profile

Assistant Professor in the School of Computer Science and Engg, VIT University, Vellore, India. Currently working on natural neutrosophic numbers and MOD structures.

Research Interests

cryptography; coding theory; information security; neutrosophic numbers; neutrosophic logic; neutrosophic mathematical modelling; neutrosophic graph theory; fuzzy and neutrosophic models for societal research.

List of Publications in Neutrosophics

Introduction to Bimatrices (with W.B.Vasantha and Florentin Smarandache), 181 p., Hexis, USA. ISBN: 1-931233-95-0


Set Linear Algebra and Set Fuzzy Linear Algebra, (with W.B. Vasantha and Florentin Smarandache) 344 p., Info Learn Quest, Ann Arbor, USA. ISBN: 1-59973-029-4

Special Set Linear Algebra and Special Set Fuzzy Linear Algebra (with W.B. Vasantha and Florentin Smarandache) 467 p., Editura CuArt, Romania. ISBN: 1-59973-106-1


Sachin Lakra
Associate Professor

Affiliation
Department of Computer Science & Technology
Manav Rachna University (MRU)
Faridabad, Haryana / INDIA

Profile
Born in Nasik, India, in 1976. Received Master’s Degree in Information Technology in 2005 and presently pursuing doctoral degree in Computer Science and Engineering from Koneru Lakshmaiah University, India. Head of the Department of IT and later CSE at MRU (formerly Manav Rachna College of Engineering - MRCE), Faridabad, India. Peer-Reviewed 6 papers of the International Congress on Computer Applications and Computational Science held in Singapore from 4 to 6 December, 2010. Published over 25 research articles and 1 textbook.

Research Interests
artificial intelligence; fuzzy theory; neutrosophy; pattern recognition; signal processing; computational intelligence; natural language processing.

List of Publications in Neutrosophics

Dr.
Chunfang Liu
Lecturer

Affiliation
College of Science
Northeast Forestry University
Hexing Road 26, Harbin, Heilongjiang
Jinan 250014 / P.R. CHINA

Profile
Bachelor degree in Applied Mathematics in Beihua University, in 1999. MSc in Applied Mathematics in Harbin Institute of Technology, China, in 2003. Currently, affiliated with College of Automation, Harbin Engineering University.

Neutrosophic Research
Studying the entropy and similarity measure of Neutrosophic Sets, the aggregation operators of Neutrosophic Sets and apply them to the decision making problems.

Research Interests
systematic engineering; decision analysis based on neutrosophic set; aggregation operators of neutrosophic set.

List of Publications in Neutrosophics


C.F. Liu, Y.S. Luo. Correlated aggregation operators for simplified neutrosophic set and their application in multi-

Feng Liu
Researcher

Affiliation
Department of E-commerce
School of Information
Xi’an University of Finance and Economics / P.R. CHINA

Profile

Born January 1964, Xi’an, P.R.China. BSc in Computer engineering from Xidian University, China. Research student at Information Technology Development Unit in Kinston College of Further Education, Surrey, UK in Artificial Intelligence. Currently employed by the Department of E-commerce, School of Information, Xi’an University of Finance and Economics.


Neutrosophic Background

Feng Liu began his research in this area in 2002, when he contributed his first paper to the First International Conference on Neutrosophy, Neutrosophic Logic, Neutrosophic Set, Neutrosophic Probability and Statistics. Then, in cooperation with Florentin Smarandache, he made a superficial observation of the philosophic background of neutrosophy. Although there were plenty of publications at that time, including books
and many articles, actually he had little experience in Chinese philosophy before he attended Buddhism education given by the Buddhist Academy of Five Sciences. Those published earlier are more based on the following ideas: Mao Zedong’s philosophy (as the compulsory education in China), with which another international article had been published prior in 1989 by Springer-Verlag London; or on Book of Changes (I-Ching), or Daodejing, with a superficial understanding. However those inspirations from Buddhism at that time are basically misleading, even though appeared in many articles and books, e.g. published by American Research Press.

When he realized his fatal flow, he extended neutrosophic research and shifted to extenics and knowledge management. For example, his recent paper “Toward Wisdom: A Hierarchical Wisdom Ontology based on Chinese Classics” tries to build up a transdisciplinary framework although not in the name of neutrosophy. To make clear the relation with neutrosophy he has worked out a manuscript in neutrosophy: “On Generality of Neutrosophic Logic”, which provides a thorough comparative analysis from Chinese classics especially Buddhism on neutrosophic logic (which claims to have combined mathematics, philosophy with Chinese classics) and finds their intrinsic distance and disadvantage in neutrosophic philosophy. Based on the universal anitya property, the paper uncovers the cause of indeterminacy, examines implication of indeterminacy, tacit logic, contrast between logic truth and absolute truth, and of neutrosophic logic. Meanwhile the paper explores the prospect of it development in a SWOT frame, and has proposed a novel neutrosophic frame leading to genius and wisdom. The paper also implies the negative role of mathematical logic with respect to wisdom, and suggests the non-mathematical complement, and the genuine wisdom – that should be included in neutrosophy according to its own definition.

Research Interests

knowledge management; neutrosophy; extenics.

List of Publications in Neutrosophics

Neutrosophic Dialogues, American Research Press, 2002

On Both A and Anti-A in Neutrosophics of Logic in Excitation-Inhibition Perspective, Presentation to the ICM2002 (International Congress of Mathematicians), Beijing


Logic: a Misleading Concept - A Contradiction Study toward Agent’s Logic Ontology, Proceedings of the First International Conference on Neutrosophy, Neutrosophic Logic, Neutrosophic Set, Neutrosophic Probability and Statistics

Name, Denominable and Undenominable, Proceedings of the First International Conference on Neutrosophy, Neutrosophic Logic, Neutrosophic Set, Neutrosophic Probability and Statistics

Truth and Absolute Truth in Neutrosophic Logic, International Society of Information Fusion, 6th International Conference on Information Fusion (FUSION 2003), July 2003, Cairns, Queensland, Australia
Dr.

Peide Liu

Professor

Affiliation
School of Management Science and Engineering
Shandong University of Finance and Economics
Erhuandong Road, Lixia District
Jinan 250014 / P.R. CHINA

Profile


Currently, Prof. Dr. Peide Liu is expert of national outstanding contributions, the council member of China Information Economics Society(CIES), the managing council member and vice secretary-general of Information Management Professional Committee in CIES.

Author or co-author of more than 160 journal and conference papers, has 5 patents, and has received 6 Science and technology awards in Shandong Province.


Research Interests

decision analysis; decision support based on neutrosophic set; aggregation operators of neutrosophic set.

List of Publications in Neutrosophics


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 1st Volume


P.D. Liu, H.G. Li. Multiple attribute decision making method based on some normal neutrosophic Bonferroni mean operators, Neural Computing and Applications, DOI: 10.1007/s00521-015-2048-z, In press.


Dr.

Francisco Gallego Lupiáñez
Associate Professor

Profile

Born in 1958, in Madrid, Spain. Received the MS and PhD degrees of the University Complutense, of Madrid, in 1980 and 1985, respectively.

Since 1981, he has been with the Department of Geometry and Topology, University Complutense, where he is currently an Associate Professor.

Dr. F.G. Lupiáñez is author of more than forty scientific papers on topology and fuzzy mathematics, and is member of the editorial board of nine journals.


Research Interests

general topology; fuzzy topology.
List of Publications in Neutrosophics


F.G. Lupiáñez. Some recent results on Atanassov’s intuitionistic fuzzy topological spaces, in Computational Intelligence in Decision and Control, World Scientific (Singapore, 2008), 229-234.


Dr. 

**Pinaki Majumdar**

*Assistant professor*

**Affiliation**
Department of Mathematics  
M.U.C Women’s College  
University of Burdwan  
B.C Road, Burdwan (W.B.) / INDIA

**Profile**

Assistant professor and head of the Department of Mathematics of M.U.C Women’s College under University of Burdwan in India. Also a guest faculty in the Integrated Science Education and Research Centre of Visva-Bharati University, India. PhD in Mathematics. Published many research papers in reputed international journals and contributed a few chapters in research monographs. Acted as a reviewer of more than a dozen of reputed international journals. Completed a few research projects sponsored by University Grants Commission of India.

**Research Interests**

neutrosophic set theory and its applications; soft set theory and its application; fuzzy set theory; fuzzy and soft topology; fuzzy functional analysis.

**List of Publications in Neutrosophics**


Mohamed Abed-ElBaset Metwally
Associate Professor

Affiliation
Department of Operations Research and Decision Support
Faculty of Computers and Informatics
Zagazig University / EGYPT

Profile

PhD in Operations Research & Decision Support Systems. Master degree in the same area. BSc of Information Systems and Technology. BSc of Operations Research & Decision Support (all from Faculty of Computers and Informatics, University Zagazig, Egypt).


Research Interests

neutrosophic computer science \ optimization; system analysis and design information system and technology; probability statistics; artificial intelligent techniques operation research/ management; applied mathematics decision support systems.
Kalyan Mondal

Assistant Teacher
PhD candidate

Affiliation
Birnagar High School (HS)
Birnagar, Ranaghat
Nadia, 741127, West Bengal / INDIA

Profile

Born in 1980. Assistant teacher of Mathematics. Currently pursuing PhD from Department of Mathematics, Jadavpur University, Kolkata, India, in neutrosophic decision making problems.

Neutrosophic Research

Mondal and Pramanik defined tri-complex rough neutrosophic similarity measure. The same authors studied interval neutrosophic multi attribute decision making and defined accumulated arithmetic operator and interval grey relational coefficient. They also defined neutrosophic tangent similarity measure and applied the concept in medical diagnosis and multi attribute decision making (MADM) problems. The same authors defined rough bipolar neutrosophic sets, rough accuracy score function and applied it for MADM; rough neutrosophic cosine, Jaccard and Dice similarity measure; rough accumulated geometric operator; cotangent neutrosophic refined similarity measure; rough neutrosophic cotangent similarity measure.

Research Interests

neutrosophic logic; rough neutrosophic logic; bipolar neutrosophic sets; decision making in neutrosophic hybrid environment; neutrosophic soft computing based techniques.

Research Topic

Decision making based on neutrosophic strategy.
List of Publications in Neutrosophics

Papers


S. Pramanik, & K. Mondal. 2015. Interval Neutrosophic Multi-Attribute Decision-Making Based on Grey Relational Analysis. Neutrosophic Sets and Systems (NSS), 9, 14-23. ISSN 2331-6055 (print), ISSN 2331-608X (online).


K. Mondal & S. Pramanik. 2015. Neutrosophic Tangent Similarity Measure and its application to multiple attribute decision making. Neutrosophic Sets and Systems (NSS), 9, 92-98. ISSN 2331-6055 (print), ISSN 2331-608X (online).


K. Mondal & S. Pramanik. 2015. Rough Neutrosophic Multi-Attribute Decision-Making Based on Grey Relational Analysis. Neutrosophic Sets and Systems (NSS). Volume 7, 8-17. (ISSN 2331-6055 (print), ISSN 2331-608X (online)).


K. Mondal & S. Pramanik. 2014. A Study on Problems of Hijras in West Bengal Based on Neutrosophic Cognitive Maps. Neutrosophic Sets and Systems (NSS), Volume 5, 21-26, (ISSN 2331-6055 (print), ISSN 2331-608X (online)).


Kalyan Mondal and Surapati Pramanik. Several trigonometric Hamming similarity measures of rough neutrosophic sets and their applications in decision making. “New Trends in


Kalyan Mondal, Surapati Pramanik and Florentin Smarandache. Multi-attribute Decision Making based on Rough Neutrosophic Variation Coefficient Similarity Measure, Neutrosophic Sets and Systems, vol 13, 2016 (In press). (ISSN 2331-6055 (print), ISSN 2331-608X (online)).

Kalyan Mondal, Surapati Pramanik and Florentin Smarandache. Rough neutrosophic TOPSIS for multi-attribute group decision making, Neutrosophic Sets and Systems, vol 13, 2016 (In press). (ISSN 2331-6055 (print), ISSN 2331-608X (online)).


International Conference (Presented Paper):


State Level Seminar (Presented Paper):

Prof. Dr.
Anjan Mukherjee

Affiliation
Department of Mathematics
Tripura University
Suryamaninagar, Agartala-799022
Tripura / INDIA

Profile
Born 01/01/1955. BSc and MSc in Mathematics from University of Calcutta. PhD from Tripura University. Present Designation/position: Professor, Pro Vice Chancellor. Topics Taught: Real Analysis, Abstract Algebra, Fuzzy Set Theory, Fuzzy Topology. 12 candidates were awarded under his guidance. 8 scholars are still working under him.

Almost 30 years of research and teaching experience. Published more than 150 research papers in journals and conference proceedings and has delivered several invited talks. He is also associated with Fuzzy and Rough Sets Association. He had visited University of Texas (U.S.A.), City College of New York (U.S.A.), Malaysia (AMC 5th Asian Mathematical Conference) and Bangladesh, Turkey, University of Macua.


Research Interests

topology; fuzzy set theory; fuzzy topology; rough sets; soft set; neutrososic soft sets.
List of Publications in Neutrosophics

Several Similarity measures of interval valued Neutrosophic soft sets and their applications in Pattern Recognition Problems. Neutrosophic Sets and Systems 6 (2014), 54-60. (with Sadhan Sarkar)

Interval Valued Neutrosophic Soft Topological spaces, Neutrosophic Sets and Systems 6 (2014), 17-26 (with Mithun Datta and Florentin Samarandache, Department of Mathematics, University of New Mexico, USA).

Similarity measures of interval valued intuitionistic fuzzy soft sets and their applications in Medical diagnosis problems, New Trends in Mathematical Sciences, 2(3) (2014), 159-165. (with Sadhan Sarkar)

A new method of measuring similarity between two neutrosophic soft sets and its applications in pattern recognition problems, Neutrosophic Sets and Systems, 8(2015), 70-76. (with Sadhan Sarkar)


Prof. Dr.

Madhumangal Pal

Affiliation
Department of Applied Mathematics
Vidyasagar University
Midnapore-721102, West Bengal / INDIA

Profile

Professor of Applied Mathematics, Vidyasagar University, India. Received Gold and Silver medals from Vidyasagar University for rank first and second in MSc and BSc examinations respectively. Received jointly with Prof. G.P.Bhattacherjee, “Computer Division Medal” from Institute of Engineers (India) in 1996 for best research work. In 2013, received Bharat Jyoti Award for the significant contribution in academics.

Successfully guided 26 research scholars for PhD degrees. Published more than 210 articles in international and national journals. Author of eight books published in India and United Kingdom.

Editor-in-Chief of “Journal of Physical Sciences” and “Annals of Pure and Applied Mathematics”, and member of the editorial Boards of many journals.

Also, visited China, London, Malaysia, Thailand, Hong Kong, Dubai and Bangladesh to deliver invited talks and chaired in national and international seminars/conferences/winter school/refresher course.

Member of several administrative and academic bodies in Vidyasagar University and other institutes. Member of the Calcutta Mathematical Society, Advanced Discrete Mathematics and Application, etc.

Neutrosophic Research

Prof. Pal with his student have defined intuitionistic neutrosophic set, four types of intuitionistic neutrosophic relations, some new operations, viz. complement, union, intersection, etc. Also, they have shown that all intuitionistic neutrosophic sets are neutrosophic set but all neutrosophic sets are not intuitionistic neutrosophic sets. Presently, they are working on intuitionistic fuzzy neutrosophic matrices.
Research Interests
algorithmic and fuzzy graph theory; fuzzy matrices; neutrosophic sets; genetic algorithms; parallel algorithms.

List of Publications in Neutrosophics


Santanu Kumar Patro

Student

Affiliation
Department of Mathematics
Berhampur University
Bhanja Bihar - 760007, Berhampur
Ganjam, Odisha / INDIA

Profile

1st class Hons. with Distinction in Bachelor degree from Khallikote Auto. College, Berhampur, India. Student at MSc in Mathematics, Berhampur University, India.

Neutrosophic Research

At only 17 years of age, the theoretical beauty of Neutrosophy attracts Santanu Kumar Patro, while he was just browsing the web. After that, he had committed to do research in Neutrosophics. The time passes... & he became the youngest neutrosophic researcher by publishing his 1st research paper on July 2016, in Neutrosophic sets & system (vol. 12).

List of Publications in Neutrosophics


Santanu Ku. Patro, F. Smarandache. On the practical visualization of Neutrosophic over-/ under-/ off membership. [To be published in NSS, 13].


Conference paper

Santanu Kumar Patro. On the construction of a refined mathematical theory of cryptography & Information: A Neutrosophic estimation. Accepted for ICAMTPBCS International Conference, Calcutta, India.
Dr. Vasile Pătrașcu

IT Analyst

Affiliation
Tarom Information Technology
Bucharest / ROMANIA

Profile


Research Interests

image processing; algorithms; feature extraction; applied mathematics; clustering algorithms; intuitionistic fuzzy set theory; colour representation and analysis; uncertainty quantification; neutrosophic representation of information.

List of Publications in Neutrosophics


Vasile Patrascu. A Novel Penta-Valued Descriptor for Color Clustering, The 6th International Conference on Image and


Florentin Smarandache (founder and editor)  
Encyclopedia of Neutrosophic Researchers, 1st Volume
Mihaela-Gabriela Păun
PhD Candidate

Affiliation
University of Bucharest
5-7 Edgar Quinet Street
Bucharest/ ROMANIA

Research Interests
comparative literature, communication, neutrosophy.

List of Publications in Neutrosophics


Hermeneutics can make beauty and ugly as neutral (as neutrosophic), Mihaela-Gabriela Păun & Mirela Teodorescu, in Social Sciences and Education Research Review, 2 52-61 (2014), ISSN 2392-9683. www.sserr.ro.
Dr.

Surapati Pramanik

Affiliation
Department of Mathematics
Nandalal Ghosh B.T. College
Panpur, Narayanpur
Dist. North 24 Parganas, W.B., 743126 / INDIA

Profile

Surapati Pramanik comes of a most ordinary peasant family but strong ancestral root at Dubapara, Dist-Murshidabad, situated on the bank of the river Padma in 1971. His father emigrated from Jotkartik, Rajshahi, East Pakistan to India due to Partition. His father late Subhas Ranjan Pramanik was a man of iron determination with ever smiling diligent personality. Mother Souvagya Devi is a pious lady. His parents’ simple but disciplined life style influenced Surapati from his very childhood. His father was an influential and popular person of the village and so his strong personality paves Surapati to reach a certain goal in his life. In his boyhood, he reads the Mahabharata in front of many interested people with his father’s encouragement. His elder brother Sukumar Pramanik played an important role in learning mathematics during his school life. Elder sister Sabita, younger brother Sukhen and sister Sumitra, cousin sister Bithika and village playmates really made Surapati a boy of pleasant manner. The natural phenomena and wonderful beauty of the river Padma and her surroundings supplied oxygen to be brought up nicely to the boy Surapati. His wife Manjira and daughter Nahali are the special inspiration of Surapati. Sri Sunil Karmakar, his family tutor influenced Surapati especially in learning English and Mathematics.

B.Sc., M.Sc., M. Ed. from University of Kalyani. Ph. D. (in Fuzzy and intuitionistic fuzzy goal programming) from IIEST, Shibpur.

He contributed more than 90 research papers in research journals and co-authored eight books.

He acts as a member of editorial board for various journals such as Global Journal of Research and Review, International Journal of Scientific and Management Studies, International Journal of Mathematics Trends

His paper was awarded best research paper in WBSSTC-2008, WBSSTC-2011 in mathematics, and WBSSTC-10, WBSSTC-2013 in social science.

Associated with Jadavpur University, and IIEST, Shibpur as a Ph. D. Guide in mathematics. Senior Life member of Operational Research Society of India, Indian Statistical Institute, Kolkata, Calcutta Mathematical Society, Centre for Mathematical Biology and Ecology.

Neutrosophic Research

S. Pramanik presented a framework of neutrosophic game theory to Jammu Kashmir conflict between India and Pakistan in WBSSTC-2008. He presented critical review of Vivekanada’s educational thoughts for women education based on neutrosophic logic in International Seminar on “Thoughts & Ideas of Swami Vivekananda on Education, 2012”.

In 2013, Pramanik and Chackrabarti presented neutrosophic cognitive map approach to the problem of construction workers.

Pramanik et al. developed grey relational analysis (GRA) method, TOPSIS method and hybrid vector similarity measures for solving neutrosophic multi-attribute decision making (MADM). He also presented some applications of single valued neutrosophic set in teacher selection, school choice, brick field, data mining problems. Pramanik et al. developed GRA method, TOPSIS method and various similarity measures based methods such as tangent, cosine, Dice, Jaccard, similarity measures for rough neutrosophic MADM.

Pramanik and Mondal defined tri-complex rough neutrosophic similarity measure and its application in MADM. Pramanik et al. defined rough tri-complex set and its application in MADM.

Pramanik et al. defined triangular fuzzy number neutrosophic weighted arithmetic averaging operator and triangular fuzzy number neutrosophic weighted geometric averaging operator to aggregate triangular fuzzy number neutrosophic sets. Pramanik et al. also developed
value and ambiguity index based ranking method of single-valued trapezoidal neutrosophic numbers.

Pramanik and Dalapati presented GRA based multi criteria decision making in generalized neutrosophic soft set environment.

Pramanik et al. studied TOPSIS methods for bipolar neutrosophic environment and refined neutrosophic environment respectively.

Pramanik et al. also presented extended projection based models for interval MADM.

Pramanik et al. defined some distance measures of single valued neutrosophic hesitant fuzzy sets. Pramanik et al. also presented GRA method for MADM with single valued neutrosophic hesitant fuzzy set information.

Pramanik and Mondal introduced rough bipolar neutrosophic set and deduced some properties.

S. Pramanik presented framework of neutrosophic linear goal programming and neutrosophic linear multi-objective programming.

Research Interests
decision making in neutrosophic environment.

List of Publications in Neutrosophics


Surapati Pramanik, Pranab Biswas, Bibhas C. Giri. (2015). Hybrid vector similarity measures and their applications to multi-attribute decision making under neutrosophic


Pranab Biswas, Surapati Pramanik, Bibhas C. Giri. (2014). Entropy based grey relational analysis method for multi-attribute decision making under single valued...


Conference Papers (at various conferences/seminars/symposiums)


Surapati Pramanik, Sourendranath Chackrabarti. 2014. Application of neutrosophic relational map in problems of


Invited Talk in International Conference

Nouran M. Radwan
Assistant Lecturer

Affiliation
Information Systems Department
Sadat Academy for Management Sciences
Cairo / EGYPT

Profile
Assistant Lecturer in Information Systems Department at Sadat Academy for Management Sciences, Cairo, Egypt. Obtained her BS in Information Systems from Sadat Academy in 2005 and got the MSc Degree in the field of Adaptive e-learning Systems from Arab Academy for Science and Technology in 2011. PhD student in Computer and Information Systems Department, Faculty of Computer and Information Sciences, Mansoura University, Egypt. Her research areas interest includes advances and uncertainty in e-learning technologies and Neutrosophic approaches for e-learning selection and evaluation.

Research Interests
managing uncertainty in learning management systems; neutrosophic multi criteria decision making for learning management systems selection; neutrosophic expert system for learning management systems evaluation; neutrosophic based approach for adaptive e-learning path.

List of Publications in Neutrosophics


Dr. Akbar Rezaei  
Lecturer in Mathematics

Affiliation  
Department of Mathematics  
Payame Noor University (PNU)  
Kerman / IRAN

Profile  

List of Publications

Papers


A. Rezaei and A. Borumand Saeid, Quotient CI-algebra, Bulletin of the Transilvania University of Brasov Vol. 5(54), No. 2(2012) Series III: Mathematics, Informatics, Physics, 1-8


A. Rezaei and A. Borumand Saeid, Smarandache N-subalgebras (Filters) of CI-algebras, Analele Universitatii de Vest, Timisoara Seria Matematica-Informatica LII, 2 (2014), 171-182.


Conferences


A. Rezaei, Congruenceec relations on BE-algebras, 3th Math. Sci. Con. of PNU, May 2010, Mashhad, Iran.


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 1st Volume


S. Borhani Nezhad Rayeni and A. Rezaei, Intuitionistic fuzzy soft subalgebras (filters) on BE-algebras, 13th Iranian Conference on Fuzzy Systems, 27 - 29 August 2013 Islamic Azad University, Qazvin Branch, Qazvin, Iran.


R. A. Borzooei, A. Borumand Saeid, A. Rezaei and R. Ameri, Some results On anti fuzzy filter in BE-algebras, 13th Iranian Conference on Fuzzy Systems, 27 - 29 August 2013, Islamic Azad University, Qazvin Branch, Qazvin, Iran.


A. Hadipour, A. Rezaei and A. Habibi Moakher, Some types of fuzzy filters in BE-algebra, The 6th National Conference on
A. Rezaei, A. Radfar and A. Borumand Saeid, A note on mirror
BE-algebras, The 6th National Conference on Mathematics
of Payame Noor University, March, 2014, Isfahan, Iran.

A. Radfar, A. Rezaei and A. Borumand Saeid, Dual hyper K-
algebras and hyper BE-algebras, The 6th National
Conference on Mathematics of Payame Noor University,
March, 2014, Isfahan, Iran.

A. Hadipour, A. Rezaei and A. Borumand Saeid, Union-soft
implicative Filters of CI-algebras, 14th Iranian Conference
on Fuzzy Systems, Faculty of Basic Sciences, Sahand
University of Technology, Tabriz, Iran, August 19-21, 2014.

M. Hamidi, A. Rezaei, A. Borumand Saeid, Relation between
hyper BE-algebras and BE-algebras, The 45th Annual
Iranian Mathematics Conference, 26-29 August 2014,
Semnan, Iran.

A. Rezaei, A. Borumand Saeid and R. Daneshpayeh, Some results
on fuzzy congruence relations in pseudo BE-algebras, IEEE
International Conference on Fuzzy Systems, August 2-5,
2015, Istanbul, Turkey.

A. Rezaei, A. Borumand Saeid, Relation between gi-algebras with
BE-algebras, 4th Iranian Joint Congress On Fuzzy And
Intelligent Systems, (15th Conference on Fuzzy Systems
and 13th Conference on Intelligent Systems), 9-11 Sep 2015,
Sistan & Baluchestan, Iran.

A. Rezaei, A. Borumand Saeid, Some results in hesitant fuzzy
filters on BE-algebras, 4th Iranian Joint Congress On Fuzzy
And Intelligent Systems (15th Conference on Fuzzy Systems
and 13th Conference on Intelligent Systems), 9-11 Sep 2015, Sistan & Baluchestan, Iran.

A. Rezaei, M. Hamidi and S. Jahan Panah, Some results in the
category of BE-algebras, 7th Mathematics National
Conference of Payame Noor University, 28-29, October
2015, Tabriz, Iran.

A. Rezaei, K. Yousefi and A. Borumand Saeid, Atoms in pseudo
CI-algebras, 1st Conference on Swarm Intelligence and
Evolutionary Computation (CSIEC 2016), 19-21, March 2016, Bam, Iran.

A. Rezaei, S. Jahan Panah and S. A. Nematolahzade, On Intuitionistic fuzzy subalgebras of distributive implication groupoids, 8th Mathematics National Conference of Payame Noor University, 11-12, April 2016, Lorestan, Iran.

A. Rezaei, A. Borumand Saeid and R. Daneshpayeh, Some results on hesitant fuzzy fantastic filters in BE-algebras, 8th Mathematics National Conference of Payame Noor University, 11-12, April 2016, Lorestan, Iran.
Dr.

Tapan Kumar Roy

Researcher

Affiliation
Department of Mathematics
Indian Institute of Engineering Science and Technology
(IIEST) Shibpur, P.O. Botanic Garden, Howrah
West Bengal – 711103 / INDIA

Profile


Neutrosophic Research

In 2014, Tapan Kumar Roy and Surapati Pramanik presented application of neutrosophic game theory to Jammu Kashmir conflict between India and Pakistan. In 2016, together with Surapati Pramanik, Shyamal Dalapati and Tapan Kumar Roy presented Logistics center location selection approach based on neutrosophic multi-criteria decision making.

Tapan Kumar Roy and Pintu Das presented at first multi-objective non-linear programming problem based on neutrosophic optimization technique and its application in Riser design problem in 2015.

Tapan Kumar Roy, Mridula Sarkar and Samir Dey presented multi-objective neutrosophic optimization technique and its application to structural design in 2016.

Research Interests

neutrosophic optimization; neutrosophic game theory; decision making in neutrosophic environment; neutrosophy.
List of Publications in Neutrosophics

*Scientific Papers*


*Conference Papers*

Ahmed A. Salama
Head of Department

Affiliation
Department of Mathematics and Computer Science
Faculty of Science, Port Said University / EGYPT

List of Publications in Neutrosophics

Articles and Books (Neutrosophic Math. and Computer Sci.)

A. A. Salama, Florentin Smarandache. Neutrosophic Crisp Set Theory, 2015 USA Book, Educational. Education Publishing 1313 Chesapeake, Avenue, Columbus, Ohio 43212, USA


A. A. Salama, Said Broumi, Florentin Smarandache. Introduction to Neutrosophic Topological Spatial Region, Possible Application to GIS Topological Rules, 2014, (Accepted)


A. A. Salama. Fuzzy Bitopological Spaces Via Fuzzy Ideals, Blast 2008, August 6-10, (2008), University of Denver, Denver, CO, USA

A.A. Salama, S.A. Alblowi. Neutrosophic Set Theory and Neutrosophic Topological Ideal Spaces, The First International Conference on Mathematics and Statistics (ICMS’10) to be held at the American University


A.A. Salama. The Concept of Neutrosophic Set and Basic Properties of Neutrosophic Set Operations, WASET 2012 PARIS, FRANC, International University of Science, Engineering and Technology


A.A. Salama. The Concept of Neutrosophic Set and Basic Properties of Neutrosophic Set Operations, WASET 2012 PARIS, FRANC, International University of Science, Engineering and Technology

A.A. Salama, S.A. Alblowi. Neutrosophic Set Theory and Neutrosophic Topological Ideal Spaces, The First International Conference on Mathematics and Statistics (ICMS’10) to be held at the American University


A.A. Salama, S.A. Alblowi. Neutrosophic Set Theory and Neutrosophic Topological Ideal Spaces, The First International Conference on Mathematics and Statistics (ICMS’10) to be held at the American University


A. A. Salama, Said Broumi, S. A. Alblowi. Introduction to Neutrosophic Topological Spatial Region, Possible Application to GIS Topological Rules, I.J. Information


A. A. Salama, F. Smarandache. Neutrosophic Crisp Set Theory, 2015 USA Book, Educational. Education Publishing 1313 Chesapeake, Avenue, Columbus, Ohio 43212, USA

A.A. Salama, Mohamed Eisa, Hewayda ElGhawalby, A.E. Fawzy. Neutrosophic Features for Image Retrieval (Submitted)

A.A. Salama, Mohamed Eisa, Hewayda ElGhawalby, RadwaFahmy. A Proposed Technique for Enhancing Image in the Neutrosophic Domain (Submitted)

A.A. Salama, Hewayda ElGhawalby, Shima Fathi. A Neutrosophic Graph Dissimilarity Measure (Submitted)

Hewayda ElGhawalby, A. A. Salama. Ultra Neutrosophic Crisp Sets and Relations (Submitted)

Hewayda ElGhawalby, A. A. Salama. A Neutrosophic Filter For Image Enhancement (Submitted)

A. A. Salama, Mohamed Abdelfattah. New Trends in Neutrosophic Theories and Applications (Submitted)

A. A. Salama, I.M. Hanafy, M.S. Dabash. Neutrosophic Crisp α-Topological Spaces (Submitted)

A. A. Salama, I.M. Hanafy, M.S.Dabash. Some Neutrosophic Crisp Nearly Open Sets (Submitted)

A.A.Salama, Hewayda ElGhawalby, Eman Marzouk. Neutrosophic Mathematical Morphology (Submitted)

A. A. Salama, F. Smarandache, Neutrosophic Crisp Probability Theory & Decision Making Process (Submitted)

A. A. Salama. Neutrosophic Spatial Region (Submitted)

A. A. Salama. Entropy formula for Neutrosophic Informations Systems (Submitted)

MSc and PhD Proposals in Neutrosophic Studies (selected)


Enhancing Images using Non-classical Sets. Researcher: Radwa Elsayed Fahmy. Supervisors: A. A. Salama, Mohamed Isa


Neutrosophic Crisp Topology. Researcher: Magdy Dabsh. Supervisors: A. A. Salama, I.M. Hanafy


Syamal Kumar Samanta

Affiliation
Department of Mathematics
Siksha Bhavana, Visva-Bharati
Santiniketan, West Bengal, 731235 / INDIA

Neutrosophic Research

Introduction of the notion of distance between two single valued neutrosophic sets and studying its properties. Defining several similarity measures between two single valued neutrosophic sets and investigating their characteristics. A measure of entropy of a single valued neutrosophic set had also been introduced. Also investigated single valued neutrosophic multisets and introduced the notions of distance and similarity measures between two single valued neutrosophic multisets, whereof an application of single valued neutrosophic multisets in medical diagnosis was discussed. Introduction of the notion of Quadripartitioned Single Valued Neutrosophic Sets (QSVNS).

List of Publications in Neutrosophics


Sadhan Sarkar
Research Scholar

Affiliation
Department of Mathematics
Tripura University
Suryamaninagar, Agartala-799022
Tripura / INDIA

Research Interests
fuzzy set; soft set; neutrosophic set; pattern recognition.

Neutrosophic Research
Working in the field of neutrosophic sets since 2013. Special interest of research is similarity measure between neutrosophic sets, neutrosophic soft sets, interval valued neutrosophic soft sets etc., and their applications in various real life problems (medical diagnosis problem, pattern recognition problem etc.)

List of Publications in Neutrosophics


Anjan Mukherjee, Sadhan Sarkar. Supervised pattern recognition using similarity measure between two interval valued neutrosophic soft sets, Annals Of Fuzzy Mathematics and Informatics (Accepted)
Prof. Dr. Gheorghe Șăvoiu

Affiliation
University of Pitești
Strada Târgul din Vale 1
110040 Pitești / ROMANIA

Profile

Professor PhD, Dr. habil. in the field of Economic Statistics and Cybernetics (2015). PhD in Economics, in the field of Economic Statistics and Cybernetics (2000). Full Professor at the University of Pitești and PhD Students Coordinator 2. Associate professor at the University of Pitești and from 2013 associate researcher at INCE "Costin C. Kirițescu" of the Romanian Academy, part of the new Centre of Mountain Economics CE-MONT. Research conducted as Vice-President responsible for research of the Romanian Society of Statistics (SRS), which is virtually one of the oldest Romanian scientific research organizations, and as a member of the Romanian Committee of History and Philosophy of Science and Technology (CRIFST) of the Romanian Academy.

There is already a formal recognition of the trans-, inter- and multidisciplinary research activities, materialized in printing the book as editor, at one of the most valuable international scientific publishers, Elsevier (Academic Press): *Econophysics: Background and Applications in Economics, Finance, and Sociophysics*; and also the work as a statistician and econometrician, by winning the special prize "Alecsandru Puiau Tacu" of the Institute of the Romanian Academy, Iași Branch, at ICES Gheorghe Zane, Iași in 2007, 2009, 2010 and 2012 (where he presented a number of over 40 papers), and the diplomas he was awarded for the 140th, 145th and 150th anniversary of official statistics in Romania, and especially the Diplomas of Excellence for the activity in the Octav Onicescu scientific seminar of the Romanian Society of Statistics for the years 2007 - 2015 (over 50 thematic presentations (conferencing) between 2004 and 2015).
He also carries on research and other related activities as a member of the Romanian Regional Science Association (RSRA), the International Association of Regional Sciences (RSAI), and the Mountain Forum in Romania (International Mountain Partnership UN/FAO), usually by presentation and publication of specific work field. The extended list of papers and contributions includes data and information on more than 30 books and nearly 300 published papers (including 25 ISI Thomson Reuters and other 75 papers indexed in international data bases), as well as a relatively large number of projects and contracts.

List of Publications in Neutrosophics


Nasir Shah

PhD Student

Profile

BSc and MSc from Punjab University, Lahore, Pakistan, in 1999 and 2001, respectively, and MS in Mathematics from International Islamic University Islamabad, Pakistan, in 2008. Currently, a PhD scholar, also teaching to MSc Math’s classes in Islamabad Model College For Girls, F-6/2 Islamabad, Pakistan. More than 15 years teaching experience at different universities and colleges. Member of Pakistan Mathematical Society for the last 7 years.

Research Interests

graphs; fuzzy and bipolar fuzzy graphs; soft sets; soft graphs; neutrosophic graphs.

List of Publications in Neutrosophics


N. Shah, M. Shabbir, S. Kamran. Information Graphs (submitted)
Philomina Simon  
*Assistant Professor*

**Affiliation**  
Department of Computer Science  
University of Kerala, Kariavattom  
Thiruvananthapuram / INDIA

**Profile**  
M Tech in Computer Science and Engineering from Department of Computer Science at Pondicherry Central University, India in 2009. B Tech in Information Technology in Govt. Engineering College Bartonhill affiliated to University of Kerala. Lecturer at Marian Engineering College, Trivandrum during 2005-2007. Assistant Professor (2009) of Mar Baselious Engineering College, Trivandrum. Industry experience as Assistant Systems Engineer in Tata Consultancy Services (TCS), Mumbai during 2009-2010. Joined as an Assistant Professor in University of Kerala in 2010. Member of various professional bodies such as IEEE, IACSIT.

**Research Interests**  
automatic cloud detection; color texture image segmentation; image processing; fractals; information retrieval; data mining.

**List of Publications in Neutrosophics**


Dr. Florentin Smarandache

Scientist, artist and writer
Full Professor of Mathematics
Founder of the Neutrosophics
and editor-in-chief of the publication “Neutrosophic Sets and Systems”
President of Neutrosophic Science
International Association

Affiliation
University of New Mexico
Department of Mathematics and Sciences
Gallup Campus, NM 87301 / USA
URL: http://fs.gallup.unm.edu/FlorentinSmarandache.htm

Profile

Post-doctoral researches at Okayama University of Science (Japan) between 12 December 2013 - 12 January 2014; at Guangdong University of Technology (Guangzhou, China), 19 May - 14 August 2012; at ENSIETA (National Superior School of Engineers and Study of Armament), Brest, France, 15 May - 22 July 2010; and for two months, June-July 2009, at Air Force Research Laboratory in Rome, NY, USA (under State University of New York Institute of Technology).

Graduated from the Department of Mathematics and Computer Science at the University of Craiova in 1979 first of his class graduates, earned a Ph. D. in Mathematics from the State University Moldova at Kishinev in 1997, and continued postdoctoral studies at various American Universities such as University of Texas at Austin, University of Phoenix, etc. after emigration.

In U.S. he worked as a software engineer for Honeywell (1990-1995), adjunct professor for Pima Community College (1995-1997), in 1997 Assistant Professor at the University of New Mexico, Gallup Campus, promoted to Associate Professor of Mathematics in 2003, and to Full Professor in 2008. Between 2007-2009 he was the Chair of Math & Sciences Department.
In mathematics he introduced the degree of negation of an axiom or theorem in geometry (see the Smarandache geometries which can be partially Euclidean and partially non-Euclidean, 1969, http://fs.gallup.unm.edu/Geometries.htm), the multi-structure (see the Smarandache n-structures, where a weak structure contains an island of a stronger structure, http://fs.gallup.unm.edu/Algebra.htm), and multi-space (a combination of heterogeneous spaces), http://fs.gallup.unm.edu/Multispace.htm.

He created and studied many sequences and functions in number theory.

In 1995 Florentin Smarandache introduced the neutrosophic set, neutrosophic logic, neutrosophic probability and neutrosophic statistics based on three components: degree of truth - membership (T), degree of indeterminacy (I), and degree of falsehood-nonmembership (F), and he published the first world publication on neutrosophic in 1998.


He coined the words "neutrosophy" [(French neutre < Latin neuter, neutral, and Greek sophia, skill/wisdom) means knowledge of neutral thought] and its derivatives: neutrosophic, neutrosophication, neutrosophicator, deneutrosophication, deneutrosophicator, etc.

In 2003 together with W. B. Vasantha Kandasamy he introduced the Neutrosophic Algebraic Structures, based on sets of Neutrosophic Numbers [i.e. numbers of the form a+bI, where a, b are real or complex numbers, and I = Indeterminacy, with I^n = I for n positive non-null integer, 0I = I, I/I = undefined, and nI+mI = (n+m)I ].

In 2006 he introduced the degree of dependence/independence between the neutrosophic components T, I, F.

In 2007 he extended the neutrosophic set to Neutrosophic Overset (when some neutrosophic component is > 1), and to Neutrosophic Underset (when some neutrosophic component is < 0), and to and to Neutrosophic Offset (when some neutrosophic components are off the interval [0, 1], i.e. some neutrosophic component > 1 and some
neutrosophic component < 0). Then, similar extensions to respectively Neutrosophic Over/Under/Off Logic, Measure, Probability, Statistics etc.

Then, introduced the Neutrosophic Tripolar Set and Neutrosophic Multipolar Set, also the Neutrosophic Tripolar Graph and Neutrosophic Multipolar Graph.

He then generalized the Neutrosophic Logic/Set/Probability to Refined Neutrosophic Logic/Set/Probability [2013], where T can be split into subcomponents T1, T2, ..., Tp, and I into I1, I2, ..., Ir, and F into F1, F2, ..., Fs, where p+r+s = n ≥ 1. Even more: T, I, and/or F (or any of their subcomponents Tj ,Ik, and/or Fl) could be countable or uncountable infinite sets.

In 2015 he refined the indeterminacy "I", within the neutrosophic algebraic structures, into different types of indeterminacies (depending on the problem to solve), such as I1, I2, , Ip with integer p ≥ 1, and obtained the refined neutrosophic numbers of the form Np = a+b1I1+b2I2+ +bpIp where a, b1, b2, , bp are real or complex numbers, and a is called the determinate part of Np, while for each k in {1, 2, , p} Ik is called the k-th indeterminate part of Np. Then consequently he extended the neutrosophic algebraic structures to Refined Neutrosophic Algebraic Structures [or Refined Neutrosophic I-Algebraic Structures] (2015), which are algebraic structures based on sets of the refined neutrosophic numbers a+b1I1+b2I2+ +bpIp.

He introduced the (T, I, F)-Neutrosophic Structures [2015]. In any field of knowledge, each structure is composed from two parts: a space, and a set of axioms (or laws) acting (governing) on it. If the space, or at least one of its axioms (laws), has some indeterminacy, that structure is a (T, I, F)-Neutrosophic Structure. And he extended them to the (T, I, F)-Neutrosophic I-Algebraic Structures [2015], i.e. algebraic structures based on neutrosophic numbers of the form a+bI, but also having indeterminacy related to the structure space (elements which only partially belong to the space, or elements we know nothing if they belong to the space or not) or indeterminacy related to at least an axiom (or law) acting on the structure space. Then he extended them to Refined (T, I, F)-Neutrosophic Refined I-Algebraic Structures.

Also, he proposed an extension of the classical probability and the imprecise probability to the 'neutrosophic probability' [1995], that he defined as a tridimensional vector whose components are real subsets of
the non-standard interval \([-0, +1]\), introduced the neutrosophic measure and neutrosophic integral [http://fs.gallup.unm.edu/NeutrosophicMeasureIntegralProbability.pdf], and also extended the classical statistics to neutrosophic statistics [http://fs.gallup.unm.edu/NeutrosophicStatistics.pdf].


In 2004 he designed an algorithm for the Unification of Fusion Theories and rules (UFT) used in bioinformatics, robotics, military.

In physics he found a series of paradoxes (see the quantum smarandache paradoxes), and considered the possibility of a third form of matter, called unmatter [2004], which is a combination of matter and antimatter - presented at Caltech (American Physical Society Annual Meeting, 2010) and Institute of Atomic Physics (Magurele, Romania 2011).

Based on a 1972 manuscript, when he was a student in Rm. Valcea, he published in 1982 the hypothesis that 'there is no speed barrier in the universe and one can construct any speed', (http://scienceworld.wolfram.com/physics/SmarandacheHypothesis.htm). This hypothesis was partially validated on September 22, 2011, when researchers at CERN experimentally proved that the muon neutrino particles travel with a speed greater than the speed of light.

Upon his hypothesis he proposed an Absolute Theory of Relativity [free of time dilation, space contraction, relativistic simultaneities and relativistic paradoxes which look alike science fiction not fact]. Then he extended his research to a more diversified Parameterized Special Theory of Relativity (1982): http://fs.gallup.unm.edu/ParameterizedSTR.pdf and generalized the Lorentz Contraction Factor to the Oblique-Contraction Factor for lengths moving at an oblique angle with respect to the motion direction, then he found the Angle-Distortion Equations (1983): http://fs.gallup.unm.edu/NewRelativisticParadoxes.pdf.

He considered that the speed of light in vacuum is variable, depending on the moving reference frame; that space and time are separated entities; also the redshift and blueshift are not entirely due to the Doppler Effect, but also to the Medium Gradient and Refraction Index

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(which are determined by the medium composition: i.e. its physical elements, fields, density, heterogeneity, properties, etc.); and that the space is not curved and the light near massive cosmic bodies bends not because of the gravity only as the General Theory of Relativity asserts (Gravitational Lensing), but because of the Medium Lensing.

In order to make the distinction between clock and time, he suggested a first experiment with different clock types for the GPS clocks, for proving that the resulted dilation and contraction factors are different from those obtained with the cesium atomic clock; and a second experiment with different medium compositions for proving that different degrees of redshifts/blushifts and different degrees of medium lensing would result.

He introduced the superluminal and instantaneous physics (domains that study the physical laws at superluminal and respectively instantaneous velocities), and the neutrosophic physics that describes collections of objects or states that are individually characterized by opposite properties, or are characterized neither by a property nor by the opposite of the property. Such objects or states are called neutrosophic entities.

In philosophy he introduced in 1995 the 'neutrosophy', as a generalization of Hegel's dialectic, which is the basement of his researches in mathematics and economics, such as 'neutrosophic logic', 'neutrosophic set', 'neutrosophic probability', 'neutrosophic statistics'.

Neutrosophy is a new branch of philosophy that studies the origin, nature, and scope of neutralities, as well as their interactions with different ideational spectra. This theory considers every notion or idea \(<A>\) together with its opposite or negation \(<\text{Anti-}A>\) and the spectrum of "neutralities" \(<\text{Neut-}A>\) (i.e. notions or ideas located between the two extremes, supporting neither \(<A>\) nor \(<\text{Anti-}A>\)). The \(<\text{Neut-}A>\) and \(<\text{Anti-}A>\) ideas together are referred to as \(<\text{Non-}A>\). According to this theory every idea \(<A>\) tends to be neutralized and balanced by \(<\text{Anti-}A>\) and \(<\text{Non-}A>\) ideas - as a state of equilibrium. As a consequence, he generalized the triad thesis-antithesis-synthesis to the tetrad thesis-antithesis-neutrothesis-neutrosynthesis [http://fs.gallup.unm.edu/neutrosophy.htm].

He extended the Lupasco-Nicolescu's Law of Included Middle \([<A>,<\text{nonA}>\text{, and a third value }<T>\text{ which resolves their contradiction at another level of reality}]\) to the Law of Included Multiple-Middle \([<A>,<\text{nonA}>\text{, and a third value }<T>\text{ which resolves their contradiction at another level of reality}]\).
<antiA>, and <neutA>, where <neutA> is split into a multitude of neutralities between <A> and <antiA>, such as <neut1A>, <neut2A>, etc.]. The <neutA> value (i.e. neutrality or indeterminacy related to <A>) actually comprises the included middle value. Also, he extended the Principle of Dynamic Opposition [opposition between <A> and <antiA>] to the Principle of Dynamic Neutrosophic Opposition [which means oppositions among <A>, <antiA>, and <neutA>]; [http://fs.gallup.unm.edu/LawIncludedMultiple-MIddle.pdf].

Other small contributions he had in psychology [http://fs.gallup.unm.edu/psychology.htm], and in sociology [http://fs.gallup.unm.edu/sociology.htm].

Invited to lecture at University of Berkeley (2003), NASA Langley Research Center-USA (2004), NATO Advance Study Institute-Bulgaria (2005), Jadavpur University-India (2004), Institute of Theoretical and Experimental Biophysics-Russia (2005), Bloomsburg University-USA (1995), University Sekolah Tinggi Informatika & Komputer Indonesia-Malang and University Kristen Satya Wacana Salatiga-Indonesia (2006), Minufiya University (Shebin Elkom)-Egypt (2007), Air Force Institute of Technology Wright-Patterson AFB in Dayton [Ohio, USA] (2009), Universitatea din Craiova - Facultatea de Mecanica [Romania] (2009), Air Force Research Lab & Griffiss Institute [Rome, NY, USA] (2009), COGIS 2009 (Paris, France), ENSIETA (Brest, Franta) - 2010, Romanian Academy - Institute of Solid Mechanics and Commission of Acoustics (Bucharest - 2011), Guangdong University of Technology (Guangzhou, China) - 2012, Okayama University of Sciences (Japan) - 2013, Osaka University (Japan) - 2014, Universidad Nacional de Quilmes (Argentina) - 2014, Universidad Complutense de Madrid (Spain) - 2014, Univ. Transilvania Brasov - 2015; Vietnam National University, Le Quy Don Technical University (Hanoi) and Hanoi University, also Ho Chi Minh City University of Technology (HUTECH), Nguyen Tat Thanh University (Ho Chi Minh City) - 2016, etc.

in Taiwan - 2011), International Conference on Advanced Mechatronic Systems (Tokyo University of Agriculture and Technology, Japan) - 2012.

He received the 2011 Romanian Academy "Traian Vuia" Award for Technical Science (the highest in the country); Doctor Honoris Causa of Academia DacoRomana from Bucharest - 2011, and Doctor Honoris Causa of Beijing Jiaotong University (one of the highest technical universities of China) - 2011; the 2012 New Mexico - Arizona Book Award & 2011 New Mexico Book Award at the category Science & Math (for Algebraic Structures, together with Dr. W. B. Vasantha Kandasamy) on 18 November 2011 in Albuquerque; also, the Gold Medal from the Telesio-Galilei Academy of Science from England in 2010 at the University of Pecs - Hungary (for the Smarandache Hypothesis in physics, and for the Neutrosophic Logic), and the Outstanding Professional Service and Scholarship from The University of New Mexico - Gallup (2009, 2005, 2001).

Very prolific, he is the author, co-author, editor, and co-editor of 180 books published by about forty publishing houses (such as university and college presses, professional scientific and literary presses, such as Springer Verlag (in print), Univ. of Kishinev Press, Pima College Press, ZayuPress, Haiku, etc.) in ten countries and in many languages, and 250 scientific articles and notes, and contributed to over 100 literary and 50 scientific journals from around the world.


Some of them can be downloaded from the LANL / Cornell University (http://arXiv.org/find) and the CERN web sites.

During the Ceausescu’s era he got in conflict with authorities. In 1986 he did the hunger strike for being refused to attend the International Congress of Mathematicians at the University of Berkeley, then published a letter in the Notices of the American Mathematical Society for the freedom of circulating of scientists, and became a dissident. As a consequence, he remained unemployed for almost two years, living from private tutoring done to students. The Swedish Royal Academy Foreign Secretary Dr. Olof G. Tandberg contacted him by telephone from Bucharest.

Not being allowed to publish, he tried to get his manuscripts out of the country through the French School of Bucharest and tourists, but for many of them he lost track.

Escaped from Romania in September 1988 and waited almost two years in the political refugee camps of Turkey, where he did unskilled works in construction in order to survive: scavenger, house painter, whetstoner. Here he kept in touch with the French Cultural Institutes that facilitated him the access to books and rencontres with personalities.

Before leaving the country he buried some of his manuscripts in a metal box in his parents vineyard, near a peach tree, that he retrieved four years later, after the 1989 Revolution, when he returned for the first time to his native country. Other manuscripts, that he tried to mail to a translator in France, were confiscated by the secret police and never returned.

He wrote hundreds of pages of diary about his life in the Romanian dictatorship (unpublished), as a cooperative teacher in Morocco ("Professor in Africa", 1999), in the Turkish refugee camp ("Escaped... / Diary From the Refugee Camp", Vol. I, II, 1994, 1998), and in the American exile - diary which is still going on.

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But he's internationally known as the literary school leader for the "paradoxism" movement which has many advocates in the world, that he set up in 1980, based on an excessive use of antitheses, antinomies, contradictions, paradoxes in creation paradoxes - both at the small level and the entire level of the work - making an interesting connection between mathematics, philosophy, and literature [http://fs.gallup.unm.edu/a/paradoxism.htm].

He introduced the 'paradoxist distich', 'tautologic distich', and 'dualistic distich', 'paradoxist quatrain' etc. inspired from the mathematical logic [http://fs.gallup.unm.edu/a/literature.htm].

Literary experiments he realized in his dramas: Country of the Animals, where there is no dialogue!, and An Upside-Down World, where the scenes are permuted to give birth to one billion of billions of distinct dramas! [http://fs.gallup.unm.edu/a/theatre.htm].

He stated: "Paradoxism started as an anti-totalitarian protest against a closed society, where the whole culture was manipulated by a small group. Only their ideas and publications counted. We couldn't publish almost anything. Then, I said: Let's do literature... without doing literature! Let's write... without actually writing anything. How? Simply: literature-object! 'The flight of a bird', for example, represents a "natural poem", that is not necessary to write down, being more palpable and perceptible in any language that some signs laid on the paper, which, in fact, represent an "artificial poem": deformed, resulted from a translation by the observant of the observed, and by translation one falsifies.

Therefore, a mute protest we did!

Later, I based it on contradictions. Why? Because we lived in that society a double life: an official one - propagated by the political system, and another one real. In mass-media it was promulgated that 'our life is wonderful', but in reality 'our life was miserable'. The paradox flourishing! And then we took the creation in derision, in inverse sense, in a syncretic way. Thus the paradoxism was born. The folk jokes, at great fashion in Ceausescu's 'Epoch', as an intellectual breathing, were superb springs.

The "No" and "Anti" from my paradoxist manifestos had a creative character, not at all nihilistic."

Paradoxism, following the line of Dadaism, Lettrism, absurd theater, is a kind of up-side down writings!

Eventually he edited three International Anthologies on Paradoxism (2000-2004) with texts from about 350 writers from around the world in many languages.

"MetaHistory" (1993) is a theatrical trilogy against the totalitarianism again, with dramas that experiment towards a total theater: "Formation of the New Man", "An Upside - Down World", "The Country of the Animals". The last drama, that pioneers no dialogue on the stage, was awarded at the International Theatrical Festival of Casablanca (1995).

He translated them into English as "A Trilogy in pARadOXisM: avant-garde political dramas"; and they were published by ZayuPress (2004).

"Trickster's Famous Deeds" (1994, auto-translated into English 2000), theatrical trilogy for children, mixes the Romanian folk tradition with modern and SF situations.

His first novel is called "NonNovel" (1993) and satirizes the dictatorship in a gloomy way, by various styles and artifice within one same style.

"Faulty Writings" (1997) is a collection of short stories and prose within paradoxism, bringing hybrid elements from rebus and science into literature.


Art was for Dr. Smarandache a hobby. He did:

- graphic arts for his published volumes of verse: "Anti-chambres/ Anti-po sies/ Bizartries" (mechanical drawings), "NonPoems" (paradoxist drawings), "Dark Snow" & "Circles of light" (covers);
- paradoxist collages for the "Anthology of the Paradoxist Literary Movement", by J. -M. Levenard, I. Rotaru, A. Skemer;
- covers and illustrations of books, published by "Dorul" Publ. Hse., Aalborg, Denmark;
- illustrations in the journal: "Dorul" (Aalborg, Denmark).

Many of his art works are held in "The Florentin Smarandache Papers" Special Collections at the Arizona State University, Tempe, and Texas State University, Austin (USA), also in the National Archives of Valcea and Romanian Literary Museum (Romania), and in the Musee de Bergerac (France).

Twelve books were published that analyze his literary creation, among them: "Paradoxism’s Aesthetics" by Titu Popescu (1995), and "Paradoxism and Postmodernism" by Ion Soare (2000).

He was nominated by the Academia DacoRomana from Bucharest for the 2011 Nobel Prize in Literature for his 75 published literary books.

Hundreds of articles, books, and reviews have been written about his activity around the world. The books can be downloaded from this Digital Library of Science:

- http://fs.gallup.unm.edu/eBooks-otherformats.htm

As a Globe Trekker he visited over 50 countries that he wrote about in his memories. In 2015 he went to an expedition in Antarctica (see his Photo Gallery at: http://fs.gallup.unm.edu/photo/GlobeTrekker.html).

International Conferences:

- First International Conference on Smarandache Type Notions in Number Theory, August 21-24, 1997, organized by Dr. C. Dumitrescu & Dr. V. Seleacu, University of Craiova, Romania.
- International Conference on Smarandache Geometries, May 3-5 2003, organized by Dr. M. Khoshnevisan, Griffith University, Gold Coast Campus, Queensland, Australia.
- International Conference on Smarandache Algebraic Structures, December 17-19, 2004, organized by Prof. M. Mary John, Mathematics Department Chair, Loyola College, Madras, Chennai - 600 034 Tamil Nadu, India.

[Presentation by Dmitri Rabounski, Progress in Physics, 1/2014]
List of Publications in Neutrosophics (selected)

Books


Uncertainty Communication Solution in Neutrosophic Key, editors Florentin Smarandache, Bianca Teodorescu, Mirela Teodorescu, EuropaNova asbl, Brussels, Belgium, 100 p., 2015.


Quaestiones Neutrosophicae, by Florentin Smarandache, Yale Landsberg; Foreword by Mumtaz Ali & Said Broumi; Neutrosophic Science International Association; Educational Publisher, Columbus, Ohio, USA, 44 p., 2015.

Neutrosophic Crisp Set Theory, by A. A. Salama & Florentin Smarandache, Educational Publisher, Columbus, 163 p., 2015.


Law of Included Multiple-Middle & Principle of Dynamic Neutrosophic Opposition, by Florentin Smarandache, EuropaNova & Educational, Brussels-Columbus (Belgium-USA), 136 p., 2014.

Topical Communication Uncertainties, editors: Stefan Vladutescu, Florentin Smarandache, Daniela Gifu, Alina Tenescu, Sitech Publishing House (Craiova, Romania) and Zip Publishing (Columbus, Ohio, USA), 300 p., 2014.
Current Communication Difficulties, editors: Florentin Smarandache, Stefan Vladutescu, Alina Tenescu, Sitech Publishing House (Craiova, Romania) and Zip Publishing (Columbus, Ohio, USA), 300 p., 2014.


Algebraic Structures on Real and Neutrosophic Semi Open Squares, by W. B. Vasantha Kandasamy, Florentin Smarandache, Education Publisher Inc., Ohio, 206 p., 2014.


Communication Neutrosophic Routes, coordinators Florentin Smarandache, Stefan Vladutescu, Educational Publisher, Columbus, 217 p., 2014.

Algebraic Structures on Fuzzy Unit Square and Neutrosophic Unit Square, by W. B. Vasantha Kandasamy, Florentin Smarandache, Educational Publisher, Columbus, 221 p., 2014.


Neutrosophic Emergencies and Incidencies, by Florentin Smarandache, Ștefan Vlăduțescu, Verlag LAP LAMBERT, OmniScriptum, GmbH & Co. KG, Saarbrücken, Deutschland / Germany, 248 p., 2013; DOI: 10.13140/2.1.3530.2400.

Fuzzy Neutrosophic Models for Social Scientists, by W. B. Vasantha Kandasamy, Florentin Smarandache, Education Publisher, Columbus, OH, 167 pp., 2013.

Neutrosophic Super Matrices and Quasi Super Matrices, by W. B. Vasantha Kandasamy, Florentin Smarandache, 200 p., Educational Publisher, Columbus, 2012.

Neutrosopia ca reflectarea a realității neconvenționale, de Florentin Smarandache, Tudor Păroiu, Ed. Sitech, Craiova, Romania, 130 p., 2012.

Neutrosophic Interpretation of The Analects of Confucius (弗羅仁汀·司馬仁達齋，傅昱華 論語的中智學解讀和擴充 — 正反及中智論語), English-Chinese Bilingual （英汉双语）, by Florentin Smarandache, Fu Yuhua, Zip Publisher, Columbus, 268 p., 2011.


Finite Neutrosophic Complex Numbers, by W. B. Vasantha Kandasamy, Florentin Smarandache, Zip Publisher, Columbus, Ohio, USA, 220 p., 2011.

Neutrosophic Interpretation of Tao Te Ching (弗羅仁汀·司馬仁達齋，付昱華 道德经的中智学解读和扩充 — 正反及中智道德经) (English-Chinese bilingual), by Florentin Smarandache & Fu Yuhua, Translation by Fu Yuhua, Chinese Branch Kappa, Beijing, 208 p., 2011.


Neutrality and Multi-Valued Logics, A R Press, Rehoboth, 119 p., 2007; (with Andrew Schumann).


Fuzzy and Neutrosophic Analysis of Women with HIV / AIDS (With Specific Reference to Rural Tamil Nadu in India),
Hexis, 316 p., 2005; (with by W. B. Vasantha Kandasamy; translation of the Tamil interviews by Meena Kandasamy).

Applications of Bimatrices to some Fuzzy and Neutrosophic Models, Hexis, 273 pp., 2005 (with W. B. Vasantha Kandasamy, K. Ilanthenral).


Basic Neutrosophic Algebraic Structures and their Applications to Fuzzy and Neutrosophic Models, Hexis, 149 pp., 2004 (with W. B. Vasantha Kandasamy).


Edited Books


Dr.

Le Hoang Son

Researcher

Affiliation
Centre for High Performance of Computing
VNU University of Science
Vietnam National University (VNU)
334 Nguyen Trai, Thanh Xuan, Hanoi / VIETNAM

Profile

Technology Development Conference on Information and Computer Science (NICS 16’), and 2016 HUST Conference on Applied Mathematics and Informatics (SAMI 16’). Published 64 papers in prestigious journals and conferences including 27 SCI/SCIE papers and undertaken more than 20 major joint international and national research projects. He has published 2 books on mobile and GIS applications. So far, he has awarded “2014 VNU Research Award for Young Scientists”, “2015 VNU Annual Research Award” and “2015 Vietnamese Mathematical Award”.

Research Interests

soft computing; fuzzy clustering; recommender systems; geographic information systems; particle swarm optimization.

List of Publications in Neutrosophics

Mumtaz Ali, Nguyen Van Minh, Le Hoang Son. A Neutrosophic Recommender System for Medical Diagnosis Based on Algebraic Neutrosophic Measures.
Mirela Teodorescu

Affiliation
Gheorghe Asachi Technical University of Iasi
Department of Textile Technology and Design
Iași / ROMANIA

List of Publications in Neutrosophics


Mihaela-Gabriela Păun, Mirela Teodorescu. Hermeneutics can make beauty and ugly as neutral (as neutrosophic), Social Sciences and Education Research Review 2 52-61 (2014)


Chapters in Books


Teodorescu: Uncertainty Communication Solution in Neutrosophy Key, Europa Nova, Bruxelles, Belgium

Conference Paper

Prof. Dr.
Luige Vlădăreanu Sr.
Scientific Researcher of the Romanian Academy

Profile


His scientific work is focused on real time control in solid mechanics applied in robot trajectory control, hybrid position – force control, multi-microprocessor systems for robot control, acquisition and processing of experimental physical data, experimental methods and signal processing, nano-micro manipulators, semi-active control of mechanical system vibrations, semi-active control of magnetorheological dissipaters systems, complex industrial automations with programmable logical controllers in distributed and decentralized structure.

He has published over 35 books and book chapters, 11 edited books, over 200 papers in journals, proceedings and conferences in the areas. Director and coordinator of over 15 grants of international and national research – development programs in the last 5 years, 15 invention patents, developing 17 advanced work methods resulting from applicative research activities and more than 60 research projects. He is the author of the virtual projection method known as Vladareanu-Munteanu method, of the Robot Neutrosophic Control RNC method known as Vladareanu-Smarandache method, and the method of the Extended (Extenics) Hybrid
Force-Position Control eHFPC of robots applied as Vladareanu-Smarandache-Sandru method. He is the winner of the two Prize and Gold of Excellence in Research 2000, SIR 2000, of the Romanian Government and the Agency for Science, Technology and Innovation. 9 International Invention and Innovation Competition Awards and Gold of World’s Exhibition of Inventions, Geneva 2007 - 2009, and other 9 International Invention Awards and Gold of the Brussels, Zagreb, Bucharest International Exhibition. He received “TraianVuia” (2006) award of the Romanian Academy, Romania’s highest scientific research forum, for a group of scientific papers published in the real time control in the solid mechanics. He is a Corresponding Member of the American Romanian Academy and he is a member of the International Institute of Acoustics and Vibration (IIAV), Auburn University, USA (2006), ABI’s Research Board of Advisors, American Biographical Institute (2006), World Scientific and Engineering Academy Society, WSEAS (2005), International Association for Modelling and Simulation Techniques in Enterprises - AMSE, France (2004), National Research Council from Romania (2003-2005), etc. He is a PhD advisor in the field of mechanical engineering at the Romanian Academy. He was an organizer of several international conferences such as the General Chair of four WSEAS International Conferences, chaired Plenary Lectures to Houston 2009, Harvard, Boston 2010 and Penang, Malaysia 2010, Paris 2011, Florence 2014, Tenerife 2015 to the WSEAS International Conferences, and he is team leader of WSEAS scientific research project: Mechanics & Robotics Systems, also serving on various other conferences and academic societies.

Nominations

- Nominated in Hubert Who is Who 2007, Encyclopedia of personalities from Romania, pg. 1226-1227, Verlag fur Personenenzyklopaedien AG, Schweiz, 2007-2010
- Nominated in “Man of the Year 2006” by Governing Board of Editors of the American Biographical Institute, 2006
- Nominated in “High Level Expert WG5 ROST 2007-2013”
- National Expert of the Board of Scientific Research in Higher Education (CNCSIS); Evaluator of over 150 projects in the national
program CNCSIS 2006, excellence program, PN II IDEI and PN II UMANE Resources, 2005-2008

- National Expert of the Board of Scientific Research in Higher Education (CNMP), Program IV Partnership in priority fields, 207.

Invited Professor

- Invited Professor at the Shanghai Jiao Tong University, School of Mechanical Engineering, with the lecture: Walking Robots Dynamical Stability Control, August 2011, 2013, 2016
- Visiting Professor at Jiliang University, Hangzhou, China, with the lecture: Dynamical Stability Control Strategy for the RABOT Compliant Walking Robot, January 2014
- Invited Professor at Shenyang Institute of Automation, Chinese Academy of Sciences, with the lecture “Real Time Control in Solid Mechanics”, December 2010 and Institute Automation of the Chinese Academy of Science, Beijing 2013-2016, FP7 RABOT Project
- Invited professor at Universidad Autónoma Metropolitana-Azcapotzalco, Mexico City with the lecture (mini-course) Applied Control Theory, April 2009

List of Publications in Neutrosophics


Vladareanu, L, Ionel Alexandru Gal, Hongnian Yu, Mincong Deng. "Improvement of the walking robot dynamic stability using the DSmT and the neutrosophic logic," in


L. Vladareanu, L. Căpitanu. The versatile intelligent portable robot platform for the simulation and testing of the prostheses hip implants, 21st Congress of the European Society of Biomechanics ESB 2015, poster, Prague, Czech Republic, 5-8 July 2015.


**Patents using Neutrosophic Sets and Systems**


Luige Vladareanu, Radu I. Munteanu, Tudor Sireteanu, Eugen Albu, Victor Vladareanu, Radu A. Munteanu, Boris S. Cononovici, Mihaela Iliescu, Octavian Melinte, Ionel A. Gal, Daniel M. Mitroi, Oana Chenaru. “Method and device for the development in virtual reality of interfaces for mechatronic systems’ control” patent OSIM A2016 00174 of 10/03/2016

**Projects applying Neutrosophic Sets and Systems**


Partnerships Program in priority fields PN-II-PT-PCCA-2013-4, ID1349, „Air multiagent system with the mobile earth station for information management”, MASIM, project no. 255/2014, the project partner Romanian Academy, Institute of Solid Mechanics, the partner coordinator Victor Vladareanu
Supervised PhD Thesis


Bucur Dan (2014). Contributions to prehension systems for robots and intelligent humanoid hands motion control, PhD Thesis, Coordinator: Prof. L. Vladareanu
Prof. Dr.
Ștefan Vlăduțescu

Affiliation
University of Craiova
13 A. I. Cuza Street
Craiova / ROMANIA

Profile
Professor of Communication, Information and Journalism at the University of Craiova. Graduated the Faculty of Philology, University of Craiova, as valedictorian, with special “Diploma of merit”. Also, graduated the Faculty of Law, University of Bucharest. Obtained his doctorate in Philosophy from University of Bucharest. Member of: International Association of Communication (ICA), Romanian Writer’s Union, Romanian Association of History of Press; board of Polish Journal of Management Studies; director of Social Sciences and Education Research Review; member of editorial board of European Scientific Journal, of Neutrosophic Sets and Systems, and of Annals of University of Craiova.

Author or co-author of 14 professional books, of 110 scientific papers, in Romania and international journals (including ISI/Thompson Reuters articles), and in Proceedings of international seminars and conferences.

Research Interests
communication, neutrosophy.

List of Publications in Neutrosophics


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 1st Volume


Prof. Dr. Sc. 

Edmundas Kazimieras Zavadskas

Member of the Lithuanian Academy of Sciences / LITHUANIA

Profile


During the period between February–October 1990, he successfully reorganized the Institute, which became the Vilnius Technical University, and was nominated a Rector for period of 1990–1996. Later the University was renamed as Vilnius Gediminas Technical University (VGTU) and Prof. E. K. Zavadskas became a Rector for the period of 1996–2002. In 2002-2011, he was Vice rector of VGTU. In this time, he worked towards making the University one of the largest universities in Lithuania, taking a leading position in technical and engineering education and research. Since 1986 till now Professor Zavadskas has been a Head of the Department of Construction Technology and Management, Civil Engineering Faculty (VGTU). Since 2011 till 2014 he was a principal research of Research Institute of Internet and Intelligent Technologies. Since 2014 till now he is a principal researcher of Research Institute of Smart Building Technologies. Furthermore, 2001–2003 he has been granted a title of Honorary Doctor of three universities: Poznań (at Poznan Technological University, Poland), Kiev (at National Aviation University, Ukraine), and St. Petersburg (at Herzen University, Russia). Since 2012 he has been granted a title of the Honorary International Professor of the National Taipei University of Technology, Taiwan.
Published over 50 books, including 5 textbooks and 16 monographs as single author, or in collaboration with other authors, 10 popular science books, over 450 research articles as well as several hundreds of articles on various social and cultural topics. He has edited over 20 collective volumes. Around 10 of his papers are classed as highly cited in the Thomson Reuters database as well as being in the top 1% of the most cited papers in its field (Engineering). His h-index is 43 according to the Web of Science with more than 5,600 citations received and 58 according to Google Scholar with more than 11,000 citations received. Also he is ranked in the top 1% of the Most Cited Scientists in Engineering according to the Essential Science Indicators of Thomson. He has been identified in the list of Highly Cited Researchers published in 2014 by Shangai Center and Thomson Reuters in the categories of Engineering, therefore, being considered one of the world’s most influential scientific researchers.

Founded three famous international scientific journals: Technological and Economic Development of Economy (Editor-in-chief since 1994), Journal of Civil Engineering and Management (Editor-in-chief since 1995) and International Journal of Strategic Property Management (Editor-in-chief from 1997 till 2011). Since 2008, all three journals have been referred in Thomson Reuters Web of Science database, and since 2010 – have impact factor (IF). Since 2010 some of these journals are published by VGTU publishing house „Technika“ in collaboration with a famous publishing house – Taylor & Francis.


Research Interests

construction materials; materials resistance; construction technology and management; life cycle analysis; civil engineering; operational research methods; decision support systems; group decision making; multi-criteria decision making; automation in design.
List of Publications in Neutrosophics


Dr.

Hai-Long Yang

Associate Professor

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College of Mathematics and Information Science
Shaanxi Normal University
No. 620, West Chang’an Avenue, Chang’an District,
Xi’an, Shaanxi Province, 710119 / P.R. CHINA

Profile

Neutrosophic Research
Working topic in neutrosophics: combination of neutrosophic sets and rough sets.

Research Interests
mathematical analysis; topology; probability; statistics; linear algebra; advanced mathematics; rough set theory and method; fuzzy mathematics.

List of Publications

Neutrosophic Sets


**Rough Set Theory; (Fuzzy) Graphs; Decision Making Analysis**


Prof. Dr.

Jun Ye

Affiliation
Department of Electrical and Information Engineering
Shaoxing University
508 Huancheng West Road, Shaoxing
Zhejiang Province 312000 / P.R. CHINA

Profile
MSc in Automation and Robotics from the Technical University of Koszalin, Poland in 1997. From Feb. 2012 to Aug. 2012, visiting scholar in the School of Engineering of Southern Polytechnic State University in USA. Currently, professor in the Department of Electrical and Information Engineering, Shaoxing University, P.R. China. More than 30 years of experience in teaching and research. Published more than 160 papers in journals, written few books related to his research work, and finished a few projects sponsored by the government of P.R. China. Member in the editorial boards of “Neutrosophic Sets and Systems”, “Journal of New Theory” (Area Editor), “The Open Automation and Control Systems Journal”, and “International Journal of Engineering, Science and Technology”. In 2009 and 2015, was awarded Outstanding Reviewer for “Applied Soft Computing Journal”.

Neutrosophic Research
Published more than 40 papers in neutrosophic theory and applications. Currently, he develops a project of neutrosophic theory, decision making and applications sponsored by the National Natural Science Foundation of P.R. China (No. 71471172).

Research interests
soft computing; multicriteria decision making; intelligent control; robotics; pattern recognitions; fault diagnosis; rock mechanics.
List of Publications in Neutrosophics

Jun Ye. Single-valued neutrosophic clustering algorithms based on similarity measures, Journal of Classification, 2016, DOI: 10.1007/s00357

Jun Ye. Some weighted aggregation operators of trapezoidal neutrosophic numbers and their multiple attribute decision making method, INFORMATICA, 2016, in press


Jun Ye. Multiple attribute group decision making based on interval neutrosophic uncertain linguistic variables, International Journal of Machine Learning and Cybernetics, 2015, DOI: 10.1007/s13042-015-0382-1


Jun Ye, Rui Yong, Qi-Feng Liang, Man Huang, Shi-Gui Du. Neutrosophic Functions of the Joint Roughness Coefficient (JRC) and the Shear Strength: A Case Study from the Pyroclastic Rock Mass in Shaoxing City, China, Mathematical Problems in Engineering, 2016, Volume 2016, 9 pages, http://dx.doi.org/10.1155/2016/4825709


Jun Ye, Jing Fu. Multi-period medical diagnosis method using a single valued neutrosophic similarity measure based on tangent function, Computer Methods and Programs in Biomedicine, 2016, 123: 142-149


Jun Ye. Improved cross entropy measures of single valued neutrosophic sets and interval neutrosophic sets and their multicriteria decision making methods, Cybernetics and Information Technologies, 2015, 15(4): 13-26

Jun Ye. Correlation coefficients of interval neutrosophic hesitant fuzzy sets and their multiple attribute decision making method, INFORMATICA, 2016, 27(1), 179–202

Jun Ye, Jing Fu. Multi-period medical diagnosis method using a single valued neutrosophic similarity measure based on tangent function, Computer Methods and Programs in Biomedicine, 2016, 123: 142-149

Jun Ye. Improved cross entropy measures of single valued neutrosophic sets and interval neutrosophic sets and their multicriteria decision making methods, Cybernetics and Information Technologies, 2015, 15(4): 13-26


Jun Ye. Improved cosine similarity measures of simplified neutrosophic sets for medical diagnoses, Artificial Intelligence in Medicine, 2015, 63(3): 171–179.


Ye Jun. Some aggregation operators of interval neutrosophic linguistic numbers for multiple attribute decision making,


Jun Ye, Qiansheng Zhang, Single valued neutrosophic similarity measures for multiple attribute decision making, Neutrosophic Sets and Systems, 2014, 2: 48-54


Said Broumi, Jun Ye, Florentin Smarandache. An extended TOPSIS method for multiple attribute decision making based on interval neutrosophic uncertain linguistic variables, Neutrosophic Sets and Systems, 2015, 8: 25-34

Lingwei Kong, Yuefeng Wu, Jun Ye. Misfire fault diagnosis method of gasoline engines using the cosine similarity measure of neutrosophic numbers, Neutrosophic Sets and Systems, 2015, 8: 43-46


Shan Ye, Jun Ye. Dice similarity measure between single valued neutrosophic multisets and its application in medical diagnosis, Neutrosophic Sets and Systems, 2014, 6: 49-54

Shan Ye, Jing Fu, Jun Ye. Medical diagnosis using distance-based similarity measures of single valued neutrosophic multisets, Neutrosophic Sets and Systems, 2015, 7: 47-52
This is the first volume of the *Encyclopedia of Neutrosophic Researchers*, edited from materials offered by the authors who responded to the editor’s invitation.

The authors are listed alphabetically.

The introduction contains a short history of neutrosophics, together with links to the main papers and books.

Neutrosophic set, neutrosophic logic, neutrosophic probability, neutrosophic statistics, neutrosophic measure, neutrosophic precalculus, neutrosophic calculus and so on are gaining significant attention in solving many real life problems that involve uncertainty, impreciseness, vagueness, incompleteness, inconsistent, and indeterminacy.

In the past years the fields of neutrosophics have been extended and applied in various fields, such as: artificial intelligence, data mining, soft computing, decision making in incomplete / indeterminate / inconsistent information systems, image processing, computational modelling, robotics, medical diagnosis, biomedical engineering, investment problems, economic forecasting, social science, humanistic and practical achievements.