The Encyclopedia of Neutrosophic Researchers

Florentin Smarandache
(founder and editor)

3rd Volume
2019
Florentin Smarandache (founder and editor)
The Encyclopedia of Neutrosophic Researchers
3rd Volume
Neutrosophic Science International Association (NSIA)
University of New Mexico
705 Gurley Ave., Gallup, NM 87301, USA
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Florentin Smarandache (founder and editor)

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Foreword

This is the third 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 the three volumes of the *Encyclopedia of Neutrosophic Researchers*, 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 fourth volume.

Prof. Florentin Smarandache, Ph D
http://fs.unm.edu/neutrosophy.htm
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History of Neutrosophic Theory and its Applications (updated)

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 he defined the neutrosophic set on three components:

\[(T, I, F) = (\text{Truth, Indeterminacy, Falsehood})\], where in general T, I, F are subsets of the interval \([0, 1]\); in particular T, I, F may be intervals, hesitant sets, or single-values; see

F. Smarandache, Neutrosophy / Neutrosophic probability, set, and logic”, Proquest, Michigan, USA, 1998,

reviewed in Zentralblatt fuer Mathematik (Berlin, Germany): https://zbmath.org/?q=an:01273000

Neutrosophic Set and Logic are generalizations of classical, fuzzy, and intuitionistic fuzzy set and logic:


While Neutrosophic Probability and Statistics are generalizations of classical and imprecise probability and statistics.
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 <antiA>, and with their neutral <neutA>.

Neutrosophy (as dynamic of opposites and their neutrals) is an extension of the Dialectics (which is the dynamic of opposites only).

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.

Degrees of Dependence and Independence between Neutrosophic Components

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 ($\text{sum} < 1$), paraconsistent and contradictory information ($\text{sum} > 1$), or complete information ($\text{sum} = 1$).

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

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 $y$.

https://doi.org/10.5281/zenodo.571359
http://fs.unm.edu/NSS/DegreeOfDependenceAndIndependence.pdf

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 Advancement of Neutrosophics

1995-1998 – Smarandache generalized the dialectics to neutrosophy;

introduced the neutrosophic set/logic/probability/statistics;
introduces the single-valued neutrosophic set (pp. 7-8);


2002 – Introduction of corner cases of sets / probabilities / statistics / logics, such as:
- Neutrosophic intuitionistic set (different from intuitionistic fuzzy set), neutrosophic paraconsistent set, neutrosophic faillibilist set, neutrosophic paradoxist set, neutrosophic pseudo-paradoxist set, neutrosophic tautological set, neutrosophic nihilist set, neutrosophic dialetheist set, neutrosophic trivialist set;
- Neutrosophic intuitionistic probability and statistics, neutrosophic paraconsistent probability and statistics, neutrosophic faillibilist probability and statistics, neutrosophic paradoxist probability and statistics, neutrosophic pseudo-paradoxist probability and statistics, neutrosophic tautological probability and statistics, neutrosophic nihilist probability and statistics, neutrosophic dialetheist probability and statistics, neutrosophic trivialist probability and statistics;
- Neutrosophic paradoxist logic (or paradoxism), neutrosophic pseudo-paradoxist logic (or neutrosophic pseudo-paradoxism), neutrosophic tautological logic (or neutrosophic tautologism):
  http://fs.unm.edu/DefinitionsDerivedFromNeutrosophics.pdf

2003 – Introduction by Kandasamy and Smarandache of
Neutrosophic Numbers \((a+bI, \text{ where } I = \text{ indeterminacy}, I^2 = I)\),
I-Neutrosophic Algebraic Structures
and Neutrosophic Cognitive Maps
http://fs.unm.edu/NCMs.pdf
2005 - Introduction of *Interval Neutrosophic Set/Logic*
http://fs.unm.edu/INSL.pdf

2006 – Introduction of *Degree of Dependence and Degree of Independence between the Neutrosophic Components T, I, F*
http://fs.unm.edu/eBook-Neutrosophics6.pdf (p. 92)
http://fs.unm.edu/NSS/DegreeOfDependenceAndIndependence.pdf

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;

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.unm.edu/NeutrosophicOversetUndersetOffset.pdf
http://fs.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.unm.edu/eBook-Neutrosophics6.pdf (p. 93)

2009 – Introduction of **N-norm and N-conorm**
http://fs.unm.edu/N-normN-conorm.pdf

2013 - Development of **Neutrosophic Measure and Neutrosophic Probability**
(chance that an event occurs, indeterminate chance of occurrence, 
chance that the event does not occur)
http://fs.unm.edu/NeutrosophicMeasureIntegralProbability.pdf

2013 – Smarandache **Refined the Neutrosophic Components** \((T, I, F) \text{ as } (T_1, T_2, \ldots; I_1, I_2, \ldots; F_1, F_2, \ldots)\)
http://fs.unm.edu/n-ValuedNeutrosophicLogic-PiP.pdf

2014 – Introduction of the **Law of Included Multiple Middle**
\((<A>; <\text{neut1}A>, <\text{neut2}A>, \ldots; <\text{anti}A>)\)
http://fs.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.unm.edu/NeutrosophicStatistics.pdf
2015 - Introduction of Neutrosophic Precalculus and Neutrosophic Calculus
http://fs.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 - Thesis-Antithesis-Neutothesis, and Neutrosynthesis, Neutrosophic Axiomatic System, neutrosophic dynamic systems, symbolic neutrosophic logic, \((t, i, f)\)-Neutrosophic Structures, I-Neutrosophic Structures, Refined Literal Indeterminacy, Quadruple Neutrosophic Algebraic Structures, Multiplication Law of Subindeterminacies:

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

2015 – Introduction of Neutrosophic Crisp Set and Topology (Salama & Smarandache)
http://fs.unm.edu/NeutrosophicCrispSetTheory.pdf

2016 – Introduction of Neutrosophic Multisets (as generalization of classical multisets)
http://fs.unm.edu/NeutrosophicMultisets.htm
2016 – Introduction of **Neutrosophic Triplet Structures** and m-valued refined neutrosophic triplet structures [Smarandache - Ali]

http://fs.unm.edu/NeutrosophicTriplets.htm

2016 – Introduction of **Neutrosophic Duplet Structures**

http://fs.unm.edu/NeutrosophicDuplets.htm

2017 - In biology Smarandache introduced the **Theory of Neutrosophic Evolution: Degrees of Evolution, Indeterminacy or Neutrality**, and Involution


2017 - Introduction by F. Smarandache of **Plithogeny** (as generalization of Dialectics and Neutrosophy), and **Plithogenic Set/Logic/Probability/Statistics** (as generalization of fuzzy, intuitionistic fuzzy, neutrosophic set/logic/probability/statistics)


http://fs.unm.edu/Plithogeny.pdf

2018 – Introduction to **Neutrosophic Psychology** (Neutropsyche, Refined Neutrosophic Memory: conscious, aconscious, unconscious, Neutropsychic Personality, Eros / Aoristos / Thanatos, Neutropsychic Crisp Personality)


2019 - Introduction to **Neutrosophic Sociology** (Neutrosociology) [neutrosophic concept, or \((T, I, F)\)-concept, is a concept that is \(T\%\) true,\(I\%\) indeterminate, and \(F\%\) false]

http://fs.unm.edu/Neutrosociology.pdf
Applications in:
Artificial Intelligence, Information Systems, Computer Science, Cybernetics, Theory Methods, Mathematical Algebraic Structures, Applied Mathematics, Automation, Control Systems, Big Data, Engineering, Electrical, Electronic, Philosophy, Social Science, Psychology, Biology, Biomedical, Engineering, Medical Informatics, Operational Research, Management Science, Imaging Science, Photographic Technology, Instruments, Instrumentation, Physics, Optics, Economics, Mechanics, Neurosciences, Radiology Nuclear, Medicine, Medical Imaging, Interdisciplinary Applications, Multidisciplinary Sciences etc.

http://fs.unm.edu/BibliometricNeutrosophy.pdf ]
Neutrosophic Sets and Systems (NSS) international journal started in 2013 and it is indexed by Scopus, Web of Science (ESCI), DOAJ, Index Copernicus, Redalyc - Universidad Autonoma del Estado de Mexico (IberoAmerica), Publons, CNKI, Google Scholar, Chinese Baidu Scholar etc. (http://fs.unm.edu/NSS/).

Submit papers on neutrosophic set/logic/probability/statistics and their applications to the editor-in-chief: smarand@unm.edu.

Encyclopedia of Neutrosophic Researchers

The authors who have published or presented papers on neutrosophics and are not included in the Encyclopedia of Neutrosophic Researchers (ENR), vols. 1, 2 and 3, http://fs.unm.edu/EncyclopediaNeutrosophicResearchers.pdf http://fs.unm.edu/EncyclopediaNeutrosophicResearchers2.pdf http://fs.unm.edu/EncyclopediaNeutrosophicResearchers3.pdf are pleased to send their CV, photo, and List of Neutrosophic Publications to smarand@unm.edu in order to be included into the fourth volume of ENR.
P. Arulpandy
Assistant Professor

Profile

Received B.Sc. (Mathematics) degree in 2012 from Government Arts College, Salem, Tamilnadu, India under Periyar University. Received both M.Sc. (Mathematics) and M.Phil. (Mathematics) from the same institution in 2014 and 2015. Also he successfully cleared TNSET (Tamilnadu State Eligibility Test) in 2017 which is essential for teaching profession in Tamilnadu. He worked as an Assistant Professor in AVS College of Technology, Salem from 2015-16. Currently, he works as an Assistant Professor in Bannari Amman Institute of Technology, Erode. Currently, he is pursuing his PhD in Digital Topology from Bharathiar University, Coimbatore, Tamilnadu. He has published two papers in Neutrosophic sets and systems (SCOPUS indexed). He has presented three papers in International and National level conferences. His areas of interest includes Neutrosophy, Digital image processing, Advanced engineering mathematics.

Research Interests

Image analysis through neutrosophic sets. Currently, developing the representation of image in bipolar neutrosophic domain.

List of Publications in Neutrosophics

PhD

Amira S. Ashour
Assistant Prof. and Head of EEC Dept.

Affiliation
Department of Electronics and Electrical Communications Engineering
Faculty of Engineering, Tanta University / EGYPT

Profile

Currently an Assistant Professor and Head of Electronics and Electrical Communications Engineering, Faculty of Engineering, Tanta University, Egypt. She was the Vice-chair of Computer Engineering Department, Computers and Information Technology (CIT) College, Taif University, KSA for one year from 2015. She was the Vice-chair of Computer Science Department, CIT College, Taif University, KSA for 5 years. She has authored/edited more than 20 books with Elsevier, and Springer, and published more than 150 papers in repute journals.

Ashour is a Series Co-Editor of Advances in Ubiquitous Sensing Applications for Healthcare, Elsevier. She is an Editor-in-Chief for the International Journal of Synthetic Emotions (IJSE), IGI Global, US. She is an Associate Editor of the IJRSDA, IGI Global, US as well as the IJACI, IGI Global, US. She is an Editorial Board Member of the International Journal of Image Mining (IJIM), Inderscience and reviewer of several repute journals.

Research Interests

Biomedical Engineering, Computer-aided diagnosis systems, Image processing, Medical imaging, Machine learning, Optimization, Neutrosophic theory, Smart antenna, Direction of arrival estimation, and Targets tracking.
List of Publications in Neutrosophics

**Edited Books**

[https://www.elsevier.com/books/neutrosophic-set-in-medical-image-analysis/guo/978-0-12-818148-5]

**Journal Publications**


**Book Chapters**

Amira S. Ashour, Yanhui Guo, Advanced Optimization based Neutrosophic Set for Medical Image Denoising. In *Neutrosophic Set in Medical Image Analysis*, Elsevier [In press]


Ahmed Refaat Hawas, Amira S. Ashour, Yanhui Guo, Neutrosophic Set in Medical Image Clustering Images. In *Neutrosophic Set in Medical Image Analysis*, Elsevier [In press]
Ahmed Esmail Shahin, Yanhui Guo, Amira S. Ashour, Advanced Neutrosophic Set in Microscopic Image Analysis. In *Neutrosophic Set in Medical Image Analysis*, Elsevier [In press]

Yanhui Guo, Amira S. Ashour, Neutrosophic Set in Dermoscopic Medical Image Segmentation. In *Neutrosophic Set in Medical Image Analysis*, Elsevier [In press]

Yanhui Guo, Amira S. Ashour, Neutrosophic Multiple Deep Convolutional Neural Network for Skin Dermoscopic Image Classification. In *Neutrosophic Set in Medical Image Analysis*, Elsevier [In press]

PhD

Muhammad Aslam
Professor of Statistics

Affiliation
Department of Statistics, Faculty of Science
King Abdul Aziz University
Jeddah 21551 / SAUDI ARABIA

Profile

Received his M.Sc in Statistics (2004) from GC University Lahore with Chief Minister of the Punjab merit scholarship, M. Phil in Statistics (2006) from GC University Lahore with the Governor of the Punjab merit scholarship, and Ph.D. in Statistics (2010) from National College of Business Administration & Economics Lahore under the kind supervision of Prof. Dr. Munir Ahmad. He worked as a lecturer of Statistics in Edge College System International from 2003-2006. He also worked as Research Assistant in the Department of Statistics, GC University Lahore from 2006 to 2008. Then he joined the Forman Christian College University as a lecturer in August 2009. He worked as Assistant Professor in the same University from June 2010 to April 2012. He worked in the same department as Associate Professor from June 2012 to October 2014. He worked as Associate Professor of Statistics in the Department of Statistics, Faculty of Science, King Abdulaziz University, Jeddah, Saudi Arabia from October 2014 to March 2017. He taught summer course as Visiting Faculty of Statistics at Beijing Jiaotong University, China in 2016. Currently, he is working as a Full Professor of Statistics in department of Statistics, King Abdul-Aziz University Jeddah, Saudi Arabia. He has published more than 325 research papers in national and international well reputed journals including for example, IEEE Access, Journal of Applied Statistics, European Journal of Operation Research, Information Sciences, Journal of Process Control, Journal of the Operational Research Society, Applied...
Mathematical Modeling, International Journal of Fuzzy Systems, Symmetry, International Journal of Advanced Manufacturer Technology, Communications in Statistics, Journal of Testing and Evaluation and Pakistan Journal of Statistics etc. His papers have been cited more than 2800 times with h-index 30 and i-10 index 84 (Google Scholar). His papers have been cited more than 1300 times with h-index 21 (Web of Science Citations). He is the author of one book published in Germany. He is also HEC approved PhD supervisor since 2011. He supervised 5 PhD theses, more than 25 M.Phil theses and 3 M.Sc theses. Dr. Muhammad Aslam is currently supervising 1 PhD thesis and more than 5 M.Phil theses in Statistics. He is reviewer of more than 50 well reputed international journals. He has reviewed more than 140 research papers for various well reputed international journals. He received meritorious services award in research from National College of Business Administration & Economics Lahore in 2011. He received Research Productivity Award for the year 2012 by Pakistan Council for Science and Technology. His name Listed at 2nd Position among Statistician in the Directory of Productivity Scientists of Pakistan 2013. His name Listed at 1st Position among Statistician in the Directory of Productivity Scientists of Pakistan 2014. He got 371 positions in the list of top 2210 profiles of Scientist of Saudi Institutions 2016. He is selected for “Innovative Academic Research & Dedicated Faculty Award 2017” by SPE, Malaysia. He Received King Abdulaziz University Excellence Awards in Scientific Research for the paper entitled “Aslam, M., Azam, M., Khan, N. and Jun, C.-H. (2015). A New Mixed Control Chart to Monitor the Process, International Journal of Production Research, 53 (15), 4684–4693. He Received King Abdulaziz University citation award for the paper entitled “Azam, M., Aslam, M. and Jun, C.-H. (2015). Designing of a hybrid exponentially weighted moving average control chart using repetitive sampling,” International Journal of Advanced Manufacturing Technology, 77:1927–1933 in 2018. He is the member of editorial board of Electronic Journal of Applied Statistical Analysis, Asian Journal of Applied Science and Technology and Pakistan Journal of Commence and Social sciences. He is also member of Islamic Countries Society of
Statistical Sciences. He is appointed as an external examiner for 2016/2017-2018/2019 triennium at The University of Dodoma, Tanzania. His areas of interest include reliability, decision trees, Industrial Statistics, acceptance sampling, rank set sampling, neutrosophic statistics and applied Statistics.

Research Interests

Introduced the area of Neutrosophic Statistical Quality Control (NSQC) the first time. His is the founder of neutrosophic inferential statistics (NIS) and NSQC. His contribution is the development of neutrosophic statistics theory for the inspection and process control. He originally developed theory in these areas under the Neutrosophic Statistics. He extended the Classical Statistics theory to Neutrosophic Statistics originally in 2018.

List of Publications in Neutrosophics


Dr. Assia Bakali  
*Professor of Computer Science*

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Ecole Royale Navale, Boulevard Sour Jdid, B.P 16303 Casablanca / MOROCCO

**Profile**

Professor of Higher Education at the Naval Royal School of Casablanca Morocco. She obtained (Habilitation) at University Hassan II university in 2016 in partnership with University of POITIERS France and a Doctorate of High Graduate Studies degree at the Hassan II University, Mohammedia in 1999.

**Research Interests**

Systems engineering, security of system information, neutrosophic graph theory.

**List of Publications in Neutrosophics**


Said Broumi; Mohamed Talea; Assia Bakali; Florentin Smarandache, Application of Dijkstra algorithm for solving interval valued neutrosophic shortest path problem, 2016 IEEE Symposium Series on Computational Intelligence (SSCI), pp1 – 6


Broumi, Said; Talea, Mohamed; Bakali, Assia: F. Smarandache and Ullah, Kifayat, Bipolar Neutrosophic Minimum Spanning Tree, Smart Application and Data Analysis for Smart Cities (SADASC’18), 2018, pp. 201-206. http://dx.doi.org/10.2139/ssrn.3127519


A. Dey, S. Broumi, L. H. Son, A. Bakali, M. Talea, F. Smarandache, A new algorithm for finding minimum spanning trees with undirected neutrosophic graphs, Granular Computing, 2018,


Using Neutrosophic Sets, *Studies in Fuzziness and Soft Computing* 369


Broumi S, Bakali A, Talea M, Smarandache F, Generalized Bipolar Neutrosophic Graphs of Type 1. 20th International Conference on Information Fusion, Xi’an,(2017):1714-1720


Broumi S, Bakali A, Talea M, Smarandache F, Complex Neutrosophic Graphs of Type 1, 2017 IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Gdynia Maritime University, Gdynia, Poland (2017):432-437


Gai Quek, Said Broumi, Ganeshsree Selvachandran, Assia Bakali, Mohamed Talea and FlorentinSmarandache, 2018, Some Results on the Graph Theory for Complex Neutrosophic Sets, Symmetry, 10(6), pp 190.

Said Broumi; Arindam Dey; Assia Bakali; Mohamed Talea; Florentin Smarandache; Dipak Koley, An algorithmic approach for computing the complement of intuitionistic fuzzy graphs, 2017 13th International Conference on Natural Computation, *Fuzzy Systems and Knowledge*, pp. 474 – 480


PhD Candidate

Holy-Heavy Msirali Balami

Lecturer

Affiliation
Nigerian Army University Biu / NIGERIA

Profile

Born in Nigeria in 1983. I obtained degree in Mathematics from Ahmadu Bello University Zaria (2003-2007), MSc degree in Mathematics from the same institution in 2013. I also obtained Postgraduate diploma in Education in Usmanu Danfodiyo University Sokoto, Nigeria in 2012. I am currently a PhD scholar in the department of mathematics, University of Abuja, Nigeria. I am at present a lecturer with Nigerian Army University Biu, Borno State, Nigeria. I have published over 40 Journal articles in national and internationally recognized peer-reviewed Journals. I have attended several national and international conferences and published many papers in proceedings. I have supervised many undergraduate projects.

Research Interests

Set, Soft Set, soft multiset, Linear algebra and fractal geometry.

List of Publications in Neutrosophics

PhD

Ayoub Banasse

Research

Affiliation
University Hassan II of Casablanca / MOROCCO

Profile

Obtained Ph.D degree on Networks and telecommunication from university Chouaib Doukkali, Morocco. Professor researcher at ISGA El Jadida, and a researcher associate on LTI Laboratory of FS Ben M'sik and EEA & TI of FST Mohamedia, University Hassan II of Casablanca, Morocco. Outstanding Reviewer on various indexed journals such as ELSEVIER Computer networks, SPRINGER Telecommunication systems, and International Journal of Advanced Computer Science and Applications, etc. Technical program committee on several international conferences: Recent Trends in Computer Science and Electronics (USA), International Conference on Technology, Innovation, Entrepreneurship and Education (UK), International Conference on Green Computing and Engineering Technologies (Denmark). Member on “Big data and Internet of Things project for urban service” project.

Research Interests

Software-defined network; automation of networks; networking; security; smart grids; neutrosophics; mobile learning; machine-learning.

List of Publications in Neutrosophics

Ismat Beg
HEC Distinguished National Professor
Fellow Pakistan Academy of Sciences

Affiliation
Centre for Mathematics and Statistical Sciences
Lahore School of Economics, Burki Road
Lahore – 53200 / PAKISTAN

Profile

Professor of Mathematics at Lahore School of Economics, Lahore. He is also an HEC Distinguished National Professor and an Honorary Full Professor, Institute for Basic Research, Florida (USA). He was a Group Associate Member/Senior Guest Scientist of the Abdul Salam International Centre for Theoretical Physics, Trieste, Italy. He has PhD in Mathematics from University of Bucharest with specialization in functional analysis and operator theory. He has served as Professor in various prestigious Universities/Institutes nationally and internationally. Dr. Beg is an internationally acknowledged scholar, researcher and teacher in the field of mathematical sciences. Dr. Beg is a Fellow of Pakistan Academy of Sciences. His research work has great diversity and is well cited by other researchers. His present research interests are in preference modeling and multi-criteria decision making, the study of fixed point theory, best approximations and fuzzy relations/multi-valued functions.

Dr. Beg has published 270 research journal papers and three books. His total citations are 3814 and his h-index is 33. He has supervised 12 MPhil dissertations, 7 PhD theses and 10 post-doctoral researchers. He was awarded Pakistan Academy of Sciences Gold Medal for research in mathematics in 2008. He was also awarded first prize in mathematics for research by National Book Council of Pakistan, Government of Pakistan in 1986. He has completed as principal investigator 11 research projects.

Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 3rd Volume
He has organized 46 conferences. He also attended 78 conferences and delivered lectures at 64 conferences. He is an elected fellow of the Institute of Mathematics and its Applications (UK), a Chartered Mathematician and a Chartered Scientist.

Professor Beg roles as teacher and mentor are also exceptional, and are felt well beyond national boundaries. He has promoted the cause of mathematics in general and of functional analysis in particular by organizing series of symposia, workshops and conferences both national and regional. He is also member of board of studies of several universities. He is member of Editorial Board of fifteen international journals. He is also a reviewer of Zentralblatt Fur Mathematik (Germany), Mathematical Review (USA), The Natural Sciences and Engineering Research Council of Canada and the Ministry of Science and Technology Development (Serbia).


Research Interests

Fuzzy set theory, Multicriteria decision problems, Fixed point theory, Order.

List of Publications in Neutrosophics


Dr.

Janani Bharatraj
Assistant Professor

Affiliation
Independent Researcher

Past Affiliation:
Hindustan Institute of Technology and Science
Chennai, Tamilnadu 603103 / INDIA

Profile

Ph.D. degree from Hindustan Institute of Technology and Science, Chennai, India. M.Phil. (Mathematics) – University of Mysore, Mysore, Karnataka, India. M.Sc. (Mathematics) – University of Mysore, Mysore, India. B.Sc. (Physics, Mathematics, Computer Science) – SBRR Mahajana First Grade College, Affiliated to University of Mysore, Mysore, India.

Research Interests

Fuzzy sets and numbers, Extensions, Neutrosophic sets, MCDM techniques, Aggregation Operators, Fuzzy Trigonometry.

List of Publications in Neutrosophics


PhD. habil.

Marcel-Ioan Boloş
Professor

Affiliation
Faculty of Economic Sciences
University of Oradea / ROMANIA

Profile

Professor PhD. habil. of the Faculty of Economic Sciences of Oradea, having a doctorate in accounting and another doctorate in management. His scientific work has been materialized in a total of 10 books, over 50 articles published in international specialty journals, two patents for invention and many projects funded by structural funds. He also was Secretary of State in 2012-2017 within the Ministry of Regional Development and Tourism and in the Ministry of Transport.

Research Interests

Fuzzy modelling; International finance; Regional development & transports; Accounting; Finance of public institutions; Corporate governance; Scientific research; Project management.

List of Publications in Neutrosophics


Dr. Rajab Ali Borzooei

Full Professor

Affiliation
Department of Mathematics
Shahid Beheshti University
Tehran 7561 / IRAN

Profile

Received the PhD. Degree at University of Kerman, Iran, and has been worked at Department of Mathematics, University of Sistan and Baluchistan, Zahedan, Iran as a (Assistant) Associative Professor (from 1993 to 2007), and he moved at Department of Mathematics, Shahid Beheshti University of, Tehran, Iran as a Full Professor (2007- until now).

He has published more than 215 research papers in several journals (see http://facultymembers.sbu.ac.ir/borzooei/) and he spent a one-year sabbatical leave at University of British Columbia, Canada.

His Awards and Honors are: Researcher University in Sistan and Baluchestan University. (2002 and 2004), Top Researcher University in Sistan and Baluchestan University(2005), Appointed Director of Education Planning and Training by Curriculum Planning Association of Iran(2009), Top Vice Chancellor for Education in Universities of Ministry of Science, Research and Technology of Iran(2011), Top Researcher University in Shahid Beheshti University(2013 and 2018).

Structures with Applications (Iran) (2013 - to date) and Editorial Board: International Journal of Industrial Mathematics (Iran) (2014 – to date).

Research Interests

Algebra (General Algebra, Logical Algebras, Ordered Algebras); Algebraic Hyperstructures; Fuzzy, soft, rough, vague and Neutrosophic set theory in Algebras; Fuzzy Graphs.

List of Publications in Neutrosophics


Dr.

Ioana-Alexandra Bradea

Assistant Professor

Profile

Assistant Professor, Ph.D. at Bucharest University of Economic Studies, Faculty of Cybernetics, Statistics and Economic Informatics. She holds a Master Degree in Finance and a Doctorate in Economic Cybernetics. Her scientific work has been materialized in a total of 6 books and over 30 ISI indexed articles published in international specialty journals. She also is specialized in corporate governance and international financing.

Research Interests

Fuzzy modelling; International finance; Corporate governance; Healthcare management; Agent-based modelling; Risk management; Scientific research; Project management.

List of Publications in Neutrosophics


CE, DDiv

Victor Christianto
Lecturer

Affiliation
Malang Institute of Agriculture (IPM), Malang / INDONESIA

Profile

He was born in Indonesia, and studied engineering in a state university in East Java. In Dec. 2008 he was granted a scholarship to study gravitation and cosmology at Institute of Gravitation and Cosmology in Moscow until June 2009. Since 2005 he has started administering an alternative preprint server, www.sciprint.org until 2009. And since 2009 he started as co-researcher of Prof. Florentin Smarandache, especially in topics related to Neutrosophic Logic, Cosmology, and other issues. Since 2017 he is editor of a theology journal, Amreta. And since 2019 he is a lecturer in Satyabhakti Advanced School of Theology – Jakarta Chapter, Indonesia.

List of Publications in Neutrosophics


Applications of Neutrosophic Membership Function in Describing Identity Dynamics in Missiology and Modern Day Ecclesiology (An Exploration in Mathematical Theology). Authors: Victor Christianto, Florentin Smarandache, viXra:1712.0589


Remark on Seven Applications of Neutrosophic Logic: in Cultural Psychology, Economics Theorizing, Conflict Resolution, Philosophy of Science, Etc. Authors: Victor Christianto, Florentin Smarandache, viXra:1811.0439


Books

*Multi-Valued Logic, Neutrosophy, and Schrödinger Equation.* Authors: Florentin Smarandache, V. Christianto, viXra:1003.0031

*Unfolding the Labyrinth: Open Problems in Physics, Mathematics, Astrophysics, and Other Areas of Science.* Authors: Florentin Smarandache, V. Christianto, Fu Yuhua, Radi I. Khrapko, J. Hutchison, viXra:1003.0027

*Neutrosophic Logic, Wave Mechanics, and Other Stories,* Authors: Florentin Smarandache, V. Christianto, viXra:0904.0005
Dr.

Bijan Davvaz
Professor

Affiliation
Department of Mathematics
Yazd University
Yazd / IRAN

Profile

Bijan Davvaz took his B.Sc. degree in Applied Mathematics at Shiraz University, Iran in 1988 and his M.Sc. degree in Pure Mathematics at Tehran University in 1990. In 1998, he received his Ph.D. in Mathematics at Tarbiat Modarres University. He is a member of Editorial Boards of 25 Mathematical journals. He is author of around 600 research papers, especially on algebraic hyperstructures and fuzzy logic. He published seven books in algebra. He chosen as the best professor (2009) and distinguished researcher (2011) in Iran. Moreover, he listed among the Highly Cited Researchers published by Thomson Reuters. He is currently Professor of Mathematics at Yazd University in Iran.

Research Interests

Group Theory; Ring Theory; Module Theory, Algebraic Hyperstructures and Their Applications; Lattice Theory; Category Theory: Topology; Soft Computing; Fuzzy Mathematics; Fuzzy Logic; Rough Sets; Soft Sets; Neutrosophic Sets; Probability Theory; Graphs and Combinatorics.

List of Publications in Neutrosophics


Dr.

Sujit Kumar De
Associate Professor

Affiliation
Department of Mathematics
Midnapore College (Autonomous)
Midnapore-721101, West Bengal / INDIA

Profile


Research Interests

Inventory control/ optimization; Game theory; Transportation Problem; Supply Chain Management under fuzzy system like intuitionistic fuzzy, hesitant fuzzy, Dense fuzzy lock, Cloudy Fuzzy, Monsoon Fuzzy, Volumetric Fuzzy, Deterministic and stochastic (Fuzzy stochastic) environment; Noise Modelling; Environmental Pollution; Industrial Pollution; Disaster Management; Welfare Economics etc. Leadership Theory.

List of Publications in Neutrosophics

PhD student

Soumyadip Dhar
Assistant Professor

Affiliation
RCC Institute of Information Technology
Canal South Road, Beliaghata
Kolkata – 700015 / INDIA

Profile

Received his B.E and M.E degree from University of Burdwan and MAKAUT respectively. Currently he is pursuing Phd. from the university of Calcutta, India. He also holds the position of assistant professor in the department of IT of the RCC Institute of Information Technology, Kolkata, India. His current research interest includes neutrosophic set, Image/video processing & analysis, soft computing, computer vision, machine intelligence and data security. He has contributed several prestigious journals, international conferences and edited books.

List of Publications in Neutrosophics

Dr. 

Hojjatollah Farahani
Assistant Professor

Affiliation
Tarbiat Modares University (TMU)
Tehran / IRAN

Profile

Received his PhD in Psychology with Emphasis in Psychometrics from University of Isfahan and he was a postdoctoral fellowship in Advanced Psychometrics at Victoria University (Australia), where he worked on the uncertainty in causal inference.

Research Interests

His research interests and directions include psychometrics, advanced behavioral statistics, innovative computational cognitive modeling, and qualitative methodology, Fuzzy logic and Neutrosophic logic.

List of Publications in Neutrosophics


Dr.

Fernando A. F. Ferreira
Associate Professor w/Habilitation
Adjunct Research Professor

Affiliation
ISCTE Business School
University Institute of Lisbon / PORTUGAL
Fogelman College of Business and Economics
University of Memphis, TN / USA

Profile

Dr. Ferreira holds a PhD in Quantitative Methods Applied to Economics and Management from the University of Algarve (Portugal). Some of his works are published in ISI-indexed international journals (e.g., Technological Forecasting & Social Change, IEEE Transactions on Engineering Management, Journal of Business Research, Journal of the Operational Research Society, Annals of Operations Research, Management Decision, International Journal of Information Technology & Decision Making, Service Business, International Journal of Strategic Property Management). He has practical experience as group facilitator and has delivered keynote and invited speeches at conferences across the world (e.g., Mexico, Spain, Hungary, Albania, Japan, South Korea). He has provided consultancy services and executive education to private companies and public sector organizations (e.g., Caixa Geral de Depósitos, S.A. (Portuguese state-owned banking corporation), Infraestruturas de Portugal, S.A. (Portugal’s rail and road infrastructure manager), and Fidelidade Insurance Company, S.A. (market leader in Portugal).

Research Interests

His research interests include multiple criteria decision analysis (MCDA), strategic decision making and integrated systems for performance measurement and risk analysis in finance, insurance, banking & real estate.
List of Publications in Neutrosophics

PhD Candidate

Firoz Ahmad

Operational Research Scholar

Affiliation
Department of Statistics and Operations Research
Aligarh Muslim University
Aligarh, 202002 / INDIA

Profile

Received Bachelor’s degree in Science (Statistics) in 2013 and Master’s degree in Science (Operations Research) in 2015 from Aligarh Muslim University Aligarh (India). Awarded with University Gold Medal for standing first in Master’s degree program. Currently PhD candidate in Aligarh Muslim University and actively involved in research activity. Published more than seven (07) research articles in reputed national and international journals. Received Best Paper Presentation award in International conference.

Research Interests

Modeling and Optimization under Uncertainty; Multiobjective Optimization Techniques; Neutrosophic Nonlinear Programming Problem, Hesitant Fuzzy Optimization Algorithm; Transportation problems.

List of Publications in Neutrosophics


Mona Gamal Gafar

Lecturer

Affiliation
Faculty of Computers And Information
Kafrelsheikh University / EGYPT

Profile


Research Interests


List of Publications in Neutrosophics


H ELwahsh, M Gamal, AA Salama, IM El-Henawy: Modeling Neutrosophic Data by Self-Organizing Feature Map: MANETs Data Case Study - Procedia Computer Science, 2017

Measures for Modeling Neutrosophic Variables, 
*Neutrosophic Sets and Systems*, 2017

H Elwahsh, M Gamal, AA Salama, IM El-Henawy, 4. A Novel Approach for Classifying MANETs Attacks with a Neutrosophic Intelligent System based on Genetic Algorithm - *Security and Communication Networks*, 2018
N. Gayathri
Research Candidate

Affiliation
Nirmala College for Women
Coimbatore – 641018
Tamilnadu / INDIA

Profile

B.Sc in Mathematics, from Nirmala College for Women, Bharathiar University, Coimbatore. M.Sc in Mathematics, from Nirmala College for Women, Bharathiar University, Coimbatore. M.Phil degree, from Bharathiar University, Coimbatore, Tamilnadu, India. Since 2015, Assistant Professor in Mathematics Department, Sri Krishna Arts and Science College, Coimbatore, Tamilnadu, India. Currently, working as a Ph.D candidate on Neutrosophic Topology and Vague Topology.

Research Interests


List of Papers Submitted in Neutrosophics

- Neutrosophic Supra Beta Closed Sets In Neutrosophic Supra Topological Spaces (Communicated).
- Neutrosophic Feebly Semi-open and Feebly Semi-closed sets in Neutrosophic Topological Spaces (Communicated).
Dr. Haitham A. El-Ghareeb
Assistant Professor

Affiliation
Information Systems Department
Faculty of Computers and Information Sciences
Mansoura University / EGYPT

Profile

Member of many distinguished computer organizations, reviewer for different highly recognized academic journals, contributor to open source projects, and the author of different books. Haitham is interested in e-learning, enterprise architecture, information architecture, and software architecture, especially in Service-Oriented Architecture (SOA), Business Process Management (BPM), Business Process Management Systems (BPMS), Information Storage and Management, Virtualization, Cloud Computing, Big Data, and in collaboration with Information Systems and e-Learning organizations and researchers. Holds a Master of Science degree (in 2008) from the same faculty that he is currently working for. His thesis was titled Evaluation of Service Oriented Architecture in e-Learning. This thesis was highly recognized and has been published as an international book under the same title (ISBN-13: 978-3-83835-538-2). He holds a PhD degree (in 2012) from the same faculty. His PhD dissertation was titled Optimizing Service Oriented Architecture to Support e-Learning with Adaptive and Intelligent Features, which was highly recognized and has been published as an international book under the title, Optimizing Service Oriented Architecture to Support e-Learning, (ISBN-13: 978-3-84731-187-4). Haitham is the author of the book Enterprise Integration Opportunities and Challenges, (ISBN-13: 978-3-65937-179-0). Haitham is one of the reviewers of the book Oracle BPM Suite 12c Modeling Patterns, (ISBN-10: 978-1-84968-902-1).
Research Interests


List of Publications in Neutrosophics


Dr.

Sergey V. Gorbachev
Candidate of Technical Science

Affiliation
Senior Researcher of the International Laboratory «Systems of technical vision», Department of Innovative Technologies, National Research Tomsk State University / RUSSIA

Profile


Gorbachev is the author and co-author of the 90 scientific publications, including 15 papers in journals indexed by Web of Science and Scopus, 2 patents, 16 certificates of registration of computer programs, 9 monographs, 2 manuals. The research results were awarded with 10 gold and silver medals and diplomas at international exhibitions.

Gorbachev is the head of the grant № 16-29-12858 «The development of intellectual multi-level system of efficiency and risk analysis of scientific and technical solutions, technologies, research projects, based on neuro-

Research Interests

Neutrosophic Cognitive Maps; Intellectual Analysis of Multidimensional Poorly Formalized Data; Deep Learning Forecasting Neural Networks; Fuzzy Logic; Hybrid Deep Learning Models; Neuro-Fuzzy Decision Trees; Cognitive Analysis; Management of Complex Objects; Foresight Methods; Technological Analysis.

List of Publications in Neutrosophics


Dr. Muhammad Gulistan  
*Assistant Professor*

**Affiliation**  
Department of Mathematics  
Hazara University Mansehra,  
Khyber Pakhtunkhwa / PAKISTAN

**Profile**


**Research Interests**

In 1965, L.A. Zadeh introduced the concept of fuzzy set. After this concept many researchers/Mathematicians engaged to fuzzy set theory. A. Rosenfeld was studied fuzzy subgroups of a group. After the concept of fuzzy subgroups, many researcher/Mathematicians applied fuzzy theory...
to algebra. In 1986, K.T. Atanassov introduced the notion of an
intuitionistic fuzzy set, which is a generalization of Zadeh fuzzy set. In
2011 Jun et. al introduced the idea of cubic sets which is the generalization
of intuitionistic fuzzy sets. The presences of indeterminacy in different
world problems, neutrosophy initiates it was into the modern research. It
is the branch of philosophy and is the generalization of the fuzzy set,
presented by Smarandache in 1998, which is the base of neutrosophic logic
and is the addition of the fuzzy logic in which indeterminacy is involved.
I am interesting in Algebraic structures of (semigroup, semihypergoup,
LA-semigroups, LA-semihypergoup, Polygroups etc) in terms of
neutrosophic sets and neutrosophic cubic sets. Further I am working in
decision making problems, graphs theory in terms of neutrosophic and
neutrosophic cubic sets.

List of Publications in Neutrosophics

J. Zhan, M. Khan, M. Gulistan and A. Ali, Applications of
neutrosophic cubic sets in multi-criteria decision-making,

M. Gulistan, N. Yaqoob, Z. Rashid, F. Smarandache and H. A.
Wahab, A Study on Neutrosophic Cubic Graphs with Real
Life Applications in Industries, *Symmetry* 2018, 10, 203;

M. Khan, M. Gulistan, N. Yaqoob and M. Shabir, Neutrosophic
cubic (a,b)-ideals in semigroups with application, *Journal of

M. Gulistan, A. Khan, A. Abdullah and N. Yaqoob, Complex
Neutrosophic Subsemigroups and Ideals, *International

R. M. Hashim, M. Gulistan and F. Smarandache, Applications of
neutrosophic Bipolar fuzzy sets in HOPE Foundation for
Planning to Build a Children Hospital with Different Types
of Similarity Measures, *Symmetry*, 2018, 10(8), 331.
Hina Gulzar
M-Phil student

Affiliation
Department of Mathematics
University of the Punjab, New Campus
54590 - Lahore / PAKISTAN

Profile

B. SC (Double Mathematics, Statistics) / Punjab College for Women, Mian Zia-ul Haq road, civil lines, Gujranwala, Pakistan (From 2012 to 2014). M. SC (Mathematics) / Govt College for Boys, Gujranwala, Pakistan, Gujranwala, Pakistan (from 2014 to 2016). M. Phil (Mathematics) / University of the Punjab, Lahore, Pakistan (from 2017 to 2019).

Research Interests


List of Publications in Neutrosophics


Charu Gupta
Assistant Professor

Affiliation
Computer Science and Engineering Department
Bhagwan Parshuram Institute of Technology,
Rohini, Delhi / INDIA

Profile

Born in India in 1987. Graduated B.E. in Computer Science and Engineering in 2009 and completed M.Tech from JSS Academy of Technical Education, Noida in Computer Science and Engineering, in 2011 with Honors. Pursuing Doctoral degree from the Department of Computer Science, Banasthali Vidyapith, Rajasthan, India under the supervision of Dr. Nisheeth Joshi and Dr. Amita Jain. Presently serving as assistant professor at Bhagwan Parshuram Institute of Technology (Affiliated to GGSIPU, Dwarka), Rohini, Delhi with a teaching experience of 8 years. She has to her credit research publications in various National and International Journals/Conferences of repute.

Research Interests

Natural Language Processing, Neutrosophic logic and its applications, Evolutionary Computation, and Information Retrieval.

List of Publications in Neutrosophics

Kawther Fawzi Hamza Alhasan

Assistant Professor

Affiliation
Department of Mathematics
College of Education for Pure Science
Babylon university / IRAQ

Profile


Ms. Hamza teaching various academic material in the department of mathematics such as mathematical statistic, probability, physical mathematics,….. for graduate and undergraduate students. Ms. Hamza has exceptional knowledge and experience in teaching curriculum to develop scientific research for undergraduate students and has conveyed this knowledge to her students in a professional manner. She has been an active member on several committees either to assess graduation researches and other committees and panels related to the managerial aspects of the department.

Ms. Hamza started developing ideas for future researches and therefore published several researches in (Bayesian ranking selection and approximation) in various international and national journals and participated in international and national conferences and workshops. She has extensive knowledge in Neutrosophy field which is a new approach to logic and she is a honorary membership of Neutrosophic Science International Association as of (2017).

Research Interests

Neutrosophy; Neutrosophic Probability; Neutrosophic Statistics; Fuzzy Theory; Graph Theory; Approximation; Bayesian approach.
List of Publications in Neutrosophics

A Journey to Neutrosophy, by K.F. Hamza, seminar, Department of Mathematics in College of Education for Pure Science, 17-12-2018.


Kawther Fawzi, Florentin Smarandache. Neutrosophic Weibull distribution and neutrosophic family Weibull distribution (submitted)

Working on translation from English to Arabic of Introduction to Neutrosophic Measure, Neutrosophic Integral, and Neutrosophic Probability, by Florentin Smarandache.
PhD Candidate

Hazwani Hashim
Lecturer

Affiliation
Faculty of Computer and Mathematical Sciences
Universiti Teknologi Mara
Campus Machang, Kelantan
18500 / MALAYSIA

Profile

MSc in Applied Mathematics, BSc in Management Mathematics and Diploma in Quantitative Sciences from Universiti Teknologi Mara (UiTM). Currently, working as a mathematic lecturer at Faculty of Computer and Mathematical Sciences, UiTM Campus Machang, Malaysia.

Research Interests

Fuzzy Set, Neutrosophic Set, Vague Sets, Multi Criteria- Decision Making.

Neutrosophic Research

Study on Neutrosophic Sets by combining Interval Neutrosophic Sets and Vague Sets (INVSs) and its application in Multi Criteria Decision Making.

List of Publications in Neutrosophics


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 3rd Volume
S. Satham Hussain

Full Time Research Scholar

Affiliation
PG & Research Department of Mathematics
Jamal Mohamed College
Tiruchirappalli – 20, Tamil Nadu / INDIA

Profile

Received Bachelor of Science in Mathematics in 2012, Master of Science in Mathematics in 2014 and Master of philosophy in Mathematics 2016 from the Madurai Kamaraj University, Madurai, India. Now pursuing Doctoral degree from the Department of Mathematics, Jamal Mohamed College, Tiruchirappalli, under the supervision of Dr. R. Jahir Hussain with the research topic “Neutrosophic Graph Theory”.

Research Interests

Fuzzy graph theory and its extension, Neutrosophic sets, Neutrosophic Graphs.

List of Publications in Neutrosophics


Qays Hatem Imran

Assistant Professor
Head of Department of Mathematics

Affiliation
Department of Mathematics
College of Education for Pure Science
Al Muthanna University
Samawah / IRAQ

Profile

B.Sc. with Grade Very good in Mathematics from University of Babylon, College of Education for Pure Science, Babil, Iraq, 2008. M.Sc. in Mathematics from University of Babylon, College of Education for Pure Science, Babil, Iraq, 2010. Faculty Member as Assistant Lecturer in Al Muthanna University, College of Education for Pure Science, Department of Mathematics, Samawah, Iraq, 2011. Assistant Professor and Head of Department of Mathematics in Al Muthanna University, College of Education for Pure Science from 26/09/2018 to up now.

Research Interests

Topological Spaces, Bitopological Spaces, Tri-topological Spaces, Fuzzy Topological Spaces, Nano Topological Spaces, Neutrosophic Topological Spaces, Neutrosophic Crisp Topological Spaces, Topological Groups and Bitopological Groups.

List of Publications in Neutrosophics


Dr.

Amita Jain
Assistant Professor

Affiliation
Computer Science and Engineering Department
Ambedkar Institute of Advanced Communication Technologies & Research
Geeta Colony, Delhi / INDIA

Profile

Dr. Amita Jain is B.E., M. Tech. (Computer Science & Technology) and Ph.D (Computer Science & Technology). She did her M.Tech from GGSIP University Delhi and Ph.D. from Jawaharlal Nehru University Delhi. She is having more than 16 years teaching and research experience. She is selected through UPSC and working as an Assistant Professor in the Department Computer Science & Engineering at Ambedkar Institute of Advanced Communication Technologies and Research, Govt. of NCT of Delhi, India. She has published more than 65 research papers in highly reputed International Journals and conferences including ACM Transactions, IEEE, Elsevier, Springer etc. She is also a reviewer on the panel of many international journals including IEEE, ACM, Elsevier etc. She is currently supervising PhD in the field of Fuzzy Logic, Information Retrieval, Natural Language Processing etc. She has organized and delivered many talks in International Conferences, Seminars and Workshops etc.

Research Interests

Natural Language Processing, Neutrosophic logic and its applications, Information Retrieval.
List of Publications in Neutrosophics


Conferences

K. Ludi Jancy Jenifer
Ph.D Student

Profile

Research Scholar, Currently pursuing Ph.D in Nirmala College for Women, Coimbatore, India.

Research Interests

Graph theory, Supra topology, Neutrosophic hesitant sets.

List of Publications in Neutrosophics


Conferences

“Neutrosophic Hesitant Sets and Neutrosophic Hesitant Topological Spaces”- 2nd International Conference in Current Scenario in Pure and Applied Mathematics-January 2019, Kongunadu College of Arts and Science, Coimbatore, India
Chaitali Kar

Research Scholar

Affiliation
Department of Mathematics
Indian Institute of Engineering Science and Technology (IIEST)
Shibpur, Howrah- 711103, West Bengal / INDIA

Profile

Bachelor of Science in Mathematics in 2013 from Bankura Sammilani College, University of Burdwan, West Bengal, India and Master of Science in Mathematics in 2015 from Indian Institute of Engineering Science and Technology, Shibpur, West Bengal, India. Currently working as a research scholar in the Department of Mathematics, Indian Institute of Engineering Science and Technology, Shibpur, under the guidance of Dr. Tapan Kumar Roy and Dr. Manoranjan Maiti.

Research Interests

Neutrosophic set, Neutrosophic number, Inventory models, Transportation problems under neutrosophic environment.

List of Publications in Neutrosophics


Mohsin Khan
Ph.D Student

Affiliation
College of Mathematical Sciences, Shou Xi Hu Campus
Yangzhou University / P.R. CHINA

Profile
Born in April, 10th, 1988, in Pakistan. I did BSc in Mathematics and Computer Science from Post Graduate College Mardan (2006-2008). MSc in Mathematics from Abdul Wali Khan University, Mardan (2009-2011). And also did MPhil in Mathematics from Abdul Wali Khan University, Mardan (2013-2015). Now doing PhD from Yangzhou University (22500) China.

Research Interests
Fuzzy sets, intuitionistic fuzzy sets, neutrosophic sets, neutrosophic graphs.

List of Publications in Neutrosophics


**Book Chapters**


Dr. Malay K. Kundu

Professor

Affiliation
Machine Intelligence Unit
Indian Statistical Institute
203, Barrackpore Trunk Road
Kolkata-700108 / INDIA

Profile

Received his B. Tech., M. Tech. and Ph.D (Tech.) degrees in Radio physics and Electronics all are from the University of Calcutta. In 1982, he joined the Indian Statistical Institute (ISI), Calcutta, as a faculty member. He superannuated from the service of the institute as Full Professor in December 2013 and became INAE distinguished chair professor in the Machine Intelligence Unit (MIU) of this Institute till 2016. Currently, he is a visiting professor at the MIU, ISI, Kolkata.

He is a Fellow of the International Association for Pattern Recognition, USA (FIAPR), Indian National Academy of Engineering (FNAE), National Academy of Sciences (FNASC), India and the Institute of Electronics and Telecommunication Engineers (FIETE), India. He has contributed 6 edited book volumes, about 150 research papers in well known and prestigious archival journals, international refereed conferences and in the edited monograph volumes. He is the holder of ten U.S patents, three International and two E.U patents.

Research Interests

Digital image processing, Machine learning, Content Based Image Retrieval, Computational Intelligence, Wavelets, Video processing & analysis and Computer vision.
List of Publications in Neutrosophics

M. Lathamaheswari

Assistant Professor

Affiliation
Hindustan Institute of Technology and Science
Department of Mathematics
Chennai 603 103 / INDIA

Profile

B.Sc from Bharathidasan University, India in 2001. M.Sc from Bharathidasan University, India in 2003, M.Phil from Bharathidasan University, India in 2005. Thesis submitted in March 2019, Hindustan Institute of Technology and Science, Chennai. Attended workshops and conferences. Presented papers in national and international conferences. Published more than 10 papers in high quality journals.

Research Interests

Modeling and Optimization under Uncertainty; Interval Neutrosophic Sets; Interval Neutrosophic Graph; Interval Neutrosophic Optimization Algorithm; Interval Neutrosophic Aggregation Operators.

List of Publications in Neutrosophics


role in traffic control management, Neutrosophic Sets and Systems. DOI: 10.5281/zenodo.2593948


Dr.

Xingsen Li
Professor of Management Science and Extenics

Affiliation
Research Institute of Extenics and Innovation Methods
Guangdong University of Technology (GDUT)
Guangzhou Higher Education Mega Center
510006, Guangzhou / P.R.CHINA

Profile

Graduated from School of Management, Graduate University of the Chinese Academy of Sciences and achieved his doctorate degree in management science and engineering in 2008. MSc degree in Mechanical Design and its Theory, School of Mechanical Electronic Engineering, China University of Mining & Technology in 2000. B.S. in Vehicular Engineering, Energy Engineering Department, Zhejiang University in 1991. He has been the secretary-general of Extenics Specialized Committee, China Association of Artificial Intelligence. He has published 4 books and more than 90 papers in various Chinese journals and international journals/conferences proceedings, including ITQM best paper and ESI highly cited paper. He wins 2017 Herbert Simon Award for outstanding contribution in information technology and decision-making, natural science awards of Zhejiang province and teaching achievement prizes at Zhejiang University.

Research Interests

Extenics; Extension Set; Intelligent Knowledge Management; Extension Data mining; Customer Churn; Factor Space; Intelligent innovation.

Neutrosophic Research

Neutrosophic Set and Extension Set; Neutrosophic Decision Making Model.
List of Publications in Neutrosophics

Yingcang Ma
Professor of Mathematics

Affiliation
School of Science, Xi’an Polytechnic University
No.19 Jinhua South Road, Xi’an City
Shaanxi Province 710048 / P.R. CHINA

Profile


Research Interests

Neutrosophic Set; Neutrosophic extended triplet group; Generalized neutrosophic extended triplet group; Machine Learning.

List of Publications in Neutrosophics


Dr.

Mladjan Maksimovic
Assistant Professor

Affiliation
Faculty of Applied Management, Economics and Finance Belgrade
University Business Academy in Novi Sad
Belgrade / SERBIA

Profile
Chairman of the Quality Committee and an Assistant Professor of Management and Informatics at the Faculty of Applied Management, Economics and Finance, University Business Academy in Novi Sad. His current research is focused on the informatics, management and quality. He has published a number of papers in the journals such as: Informatica, Minerals Engineering, Transformations in Business and Economics, etc.

Research Interests
Informatics, management and quality.

List of Publications in Neutrosophics

Akansha Mishra
Research Scholar

Affiliation
Thapar Institute of Engineering & Technology
Patiala, Punjab / INDIA

Profile

Bachelor in Sciences from D.G.P.G. College, Kanpur, India and M.Sc. in Mathematics from Visvesvaraya National Institute of Technology, Nagpur, India. Perusing Ph.D. from Thapar Institute of Engineering & Technology, Patiala, Punjab, India.

Research Interests

Fuzzy optimization; aggregation operators for various extensions of fuzzy set; fuzzy transportation problems.

List of Publications in Neutrosophics


Dr. Sankar Prasad Mondal
Assistant Professor

Affiliation
Department of Natural Science
Maulana Abul Kalam Azad University of Technology
West Bengal / INDIA

Profile

Dr. Sankar Prasad Mondal is an Assistant Professor in the Department of Natural Science in Maulana Abul Kalam Azad University of Technology, West Bengal, India. Previously he was working as an Assistant Professor in the department of Mathematics in Midnapore College (Autonomous) and National Institute of Technology, Agartala. He is having 5 years of teaching and 9 years of research experience in the field of operations research, differential equation, fuzzy sets, mathematical biology, fuzzy differential equation, Soft Computing, Artificial Indigence, Optimization theory. He already published 51 research paper in reputed journals, 10 books chapter and 2 conference paper.

Research Interests


List of Publications in Neutrosophics


Books Chapter

Sankar Prasad Mondal, Syed Abou Iltaf Hussain, Binayak Sen, Uttam Kumar Mandal, Linear and Non-linear Neutrosophic Numbers, Fuzzy Multi-criteria Decision-
Making Using Neutrosophic Sets (Springer), 2018, pp 63-78

Dr. G. Muhiuddin
Associate Professor

Affiliation
Department of Mathematics
University of Tabuk
Tabuk 71491 / SAUDI ARABIA

Profile

Dr. G. Muhiuddin Chishty is working at the Department of Mathematics, University of Tabuk, Saudi Arabia as an Associate Professor. He received his Ph.D. and M. Phil. in Pure Mathematics, more specifically, in Algebra with specialization in Category Theory. His mathematical research areas include Algebras related to logic (BCK, BCI, BCC-algebras, Hilbert algebras, and implication algebras), Fuzzy logical algebras, Theory of derivations in algebraic structures and Category theory. He serves as an expert referee for several research papers in these areas of his expertise. He also serves as reviewer for Mathematics Reviews of the American Math Society, USA (Mathematical Reviews/ MathSciNet Reviewer Number: 105900). He has published a number of research papers in internationally reputed mathematical journals. He is an active a member of the editorial boards of (i) Transnational Journal of Mathematical Analysis and Application and (ii) Annals of Fuzzy Mathematics and Informatics (iii) Financial Forum (Singapore). Also, Editor-in-chief of the journal Annals of Communication in Mathematics (http://www.technoskypub.com/journal/acm/).

Dr. Muhiuddin has visited several universities / institutions worldwide. He has attended more than 20 conferences and also delivered invited talks at various universities and institutions across the globe. He has visited Paris, France and Zurich, Switzerland to present research papers at international conferences on Mathematics in 2012. He has delivered an invited talk in “The 32th Ohio State – Dension Mathematics Conference-2014”, The Ohio State University, Columbus, USA in 2014.
Also, has delivered an invited research seminar talk at the Department of Mathematics, The Ohio State University, Lima, USA in 2014. He has been served as a Coordinator of two international conferences namely (i) “International Seminar on Algebra (ISA-2013)” during December 16-17, 2013 (ii) “International Workshop on Pure and Applied Mathematics-2015 (IWPAM-2015)” during May 31-June 2, 2015 held at the Department of Mathematics, University of Tabuk, Tabuk, Saudi Arabia.

List of Publications in Neutrosophics


Nada Adel Nabieh

Teaching Assistance

Affiliation
Information Systems Department
Faculty of Computer and Information Sciences
Mansoura University / EGYPT

Profile

B.S. from Mansoura University (Excellent with honor the first) in 2011, and Master degree received from Mansoura University in 2015. More than eight years of teaching and research experiences. The current working is as teaching assistance at Faculty of Computer and Information Sciences Mansoura University Egypt.

Research Interests

Neutrosophic sets; decision support systems; multi-criteria decision making; Cloud Computing; Big data; Smart city; Internet of Things; neural networks, Artificial Intelligence; Web Service Composition; Evolutionary Algorithms.

List of Publications in Neutrosophics


Ahmed Basim Al-Nafee

Affiliation
College of Education For Pure Sciences
Math Dept., Babylon University
Babylon / IRAQ

Profile

Born in 1987, Babylon, Iraq. BA from College of Education for Pure Sciences, Department of Mathematics, Babylon University (2008). MSc from the same university, with the thesis "Separation Axioms with respect Ideal Topological Space" (2013).

Research Interests

Soft Sets; Gem-set ; Neutrosophic Sets.

List of Publications in Neutrosophics

Dr.

**D. Nagarajan**

*Professor*

**Affiliation**

Hindustan Institute of Technology and Science
Chennai - 603103 / INDIA

**Profile**

BSc from Manonmaniyan Sundaranar University, India in 1995. MSc degree from Manonmaniyan Sundaranar University, in 1997. Earned PhD in 2007 from Manonmaniyan Sundaranar University. Referee for some respectful journals. Published more than 50 research papers in high quality journals.

**Research Interests**

Single Valued Neutrosophic Sets; Interval valued Neutrosophic Sets; Neutrosophic stochastic.

**List of Publications in Neutrosophics**


Basanti Pal Nandi

Assistant Professor

Affiliation
Computer Science and Engineering Department
Guru Tegh Bahadur Institute of Technology
Rajouri Garden, Delhi / INDIA

Profile

Bachelor of Engineering in Power Plant Engineering from Jadavpur University in 1999. M.Tech in Computer Technology from Jadavpur University in 2005. NET qualified in 2014 organised by UGC. Currently working as an Assistant Professor at Guru Tegh Bahadur Institute of Technology. 10 years of teaching experience in academic field.

Research Interests

Neutrosophic and Fuzzy sets and its variations with applications, Natural Language Processing, Evolutionary Algorithm, Image Processing.

List of Publications in Neutrosophics

Chapter


Conferences


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 3rd Volume
Nanthini T.

Research Scholar

Affiliation
Department of Mathematics
Government Arts College
Udumalpet, Tirupur (Dt)
Tamilnadu / INDIA

Profile

Bachelor of Science in Mathematics from GTN Arts College, Madurai Kamaraj University, Tamilnadu, India (2007). Master of Science in Mathematics from Gandhigram Rural University, Tamilnadu, India (2010). M. Phil in Mathematics from Bharathidasan University, Trichy, Tamilnadu, India(2013). Six years of teaching experience. Now, pursuing PhD in Mathematics (Topology), Government Arts College, Udumalpet, Tamilnadu, India.

Research Interests

Topology, Neutrosophic Topology.

List of Publications in Neutrosophics

Mahammad Hanif Page

Assistant Professor

Affiliation
Department of Mathematics
KLE Technological University
BVB Campus, Vidyanagar, Hubballi-31
Karnataka State / INDIA

Profile

Earned Ph.D. in Mathematics from Karnataka University, Dharwad in 2009. Presently working as an Assistant Professor KLE Technological University. Total 14 years of teaching experience. Published 42 papers in International journals.

Research Interests


List of Publications in Neutrosophics


Dr. Dragan Pamučar
Associate Professor

Affiliation
University of Defence in Belgrade
Military Academy, Department of Logistics
Pavla Jurisica Sturma 33, 11000 Belgrade / SERBIA

Profile

Dragan Pamucar is an Associate Professor at University of Defence in Belgrade, Military academy, Department of Logistics, Serbia. Prof. Pamucar received a PhD in Applied Mathematics with specialization of Multi-criteria modelling and soft computing techniques, from University of Defence in Belgrade, Serbia in 2013 and an MSc degree from the Faculty of Transport and Traffic Engineering in Belgrade, 2009. His research interest are in the field of Computational intelligence, multi-criteria decision making problems, neuro-fuzzy systems, fuzzy, rough and intuitionistic fuzzy set theory, neutrosophic theory. Application areas include wide range of logistics and transportation problems.

Prof. Pamucar has published more than 100 articles on international journals including Experts Systems with Applications, Computational Intelligence, Applied Soft Computing, Journal of Cleaner Production, Sustainability, Symmetry, Water, Asia-Pacific Journal of Operational Research, Operational Research, Journal of Intelligent and Fuzzy Systems, Land use policy, Environmental Impact Assessment Review, Renewable Energy and so on. He served as the Guest Editor of Journal of Intelligent and Fuzzy Systems, Symmetry and Algorithms. Prof. Pamucar is currently serving as the associate editor, editorial board member, or peer reviewer of several international journals. He has also acted as the chairs, board members of program committees or organizing committees in various conferences or academic organizations at home and abroad.
Neutrosophic Research

Applications of neutrosophic sets in multi-criteria decision making modelling.

List of Publications in Neutrosophics


Dr.

S. Krishna Prabha
Assistant Professor

Affiliation
Department of Mathematics
PSNA College of Engineering and Technology
Dindigul / INDIA

Profile

BSc in Mathematics, GTN Arts College, Madurai Kamaraj University of Tamil Nadu in 2000. MSc in Mathematics in 2002, Madurai Kamaraj University, MPhil in Mathematics in 2004, Madurai Kamaraj University. ME-System Engineering and Operation Research Anna University, Trichy in 2012, Qualified SLET, Ph.D Scholar Mother Teresa Women’s University, Kodaikanal. Assistant Professor in Department of Mathematics since 2003 to till date.

Research Interests

Fuzzy Algebra; Operations Research; Mathematical Modelling; Neutrosophic Optimization Theory and Inventory Models.

List of Publications in Neutrosophics

Dr.

**T. Srinivasa Rao**

*Associate Professor*

**Affiliation**
Department of Mathematics, K L E F
Vaddeswaram
Andhra Pradesh / INDIA

**Profile**

Ph.D in Mathematics from Acharya Nagarjuna University, 2014. Working as Assoc. Prof. in the dept. of Mathematics, K L E F. Guiding two Ph.D scholars. Published 22 articles and 1 book.

**Research Interests**

Semigroups, $\Gamma$-soft sets, $\Gamma$-Neutrosophic soft sets.

**List of Publications in Neutrosophics**

Dr.

Muhammad Riaz
Assistant Professor

Affiliation
Department of Mathematics
University of the Punjab Lahore / PAKISTAN

Profile

Working as Assistant Professor at Department of Mathematics, University of the Punjab Lahore. He has received M.Sc. M.Phil and Ph.D degrees in Mathematics from Department of Mathematics University of the Punjab Lahore. He did his Ph.D under the supervision of Dr. Muhammad Aslam Malik Associate Professor. Department of Mathematics, University of the Punjab, Lahore (Thesis entitled “Certain Quadratic Fields under the Action of two Generator Groups”). He has also served as Lecturer in Mathematics at Govt. College of Science Lahore. His research interests include Algebra, Group Action, Functional Analysis, and Fuzzy Soft Set Theory. He has published more than 20 research papers in international and national HEC recognized journals. He is supervising M.Phil/Ph.D. scholars. He has participated and presented his research papers as invited speaker in many International and National conferences in his field of Fuzzy Sets, Soft Sets, Neutrosophic Sets and Rough Sets. He has been acting as a referee of some well reputed journals. He has 22 years regular teaching experience at Graduate and Post Graduate level in Mathematics in various HEC recognized/highly reputed public sector institutions. He is also working as the students’ advisor and Coordinator 4 Years BS Program at Department of Mathematics, University of the Punjab.

Research Interests


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 3rd Volume
List of Publications in Neutrosophics


Dr. Abhijit Saha
Assistant Professor

Affiliation
Dept. of Basic Science and Humanities
Techno College of Engg. Agartala
Maheshkhola-799004
Tripura (West) / INDIA

Profile

Dr. Abhijit Saha obtained M.Sc degree from Tripura University and completed Ph. D under the guidance of Prof. Anjan Mukherjee, Dept. of Mathematics of Tripura University. He has cleared SET and GATE Exam in mathematical sciences. He is currently working as an Asst. Professor and H.O.D in the Dept. of Basic Science and Humanities of Techno College of Engg. Agartala. He has more than eight years of teaching experience. Dr. Saha has published more than 15 research articles in various journals of National and International repute. His upcoming books are Gate Engg. Mathematics, Graph Theory And Combinatorics, An Introduction To Basic Number Theory, Diploma Engg. Mathematics, 2000 Solved Problems For Cbse Class XII Mathematics, A Rudiment Of Integrals Transform.

Research Interests

Fuzzy set theory, intuitionistic fuzzy set theory, soft set theory, rough set theory and neutrosophic set theory.

List of Publications in Neutrosophics

Interval valued neutrosophic soft sets; Anjan Mukherjee, Mithun Datta and Abhijit Saha; Journal of Fuzzy Mathematics; 23(2), 2015.

New operations on interval valued neutrosophic sets; Abhijit Saha and Said Broumi (Communicated)
Profile

Andrew Schumann works at the University of Information Technology and Management in Rzeszow, Poland. His research focuses on logic and philosophy of science with an emphasis on non-well-founded phenomena: self-references and circularity. He contributed mainly to research areas such as reasoning under uncertainty, probability reasoning, non-Archimedean mathematics, neutrosophic logics, as well as their applications to cognitive science.

Research Interests

Neutrosophics; non-Archimedean mathematics; unconventional computing; decision theory; logical modelling of economics.

List of Publications in Neutrosophics


Serhat Aydin

Lecturer

Affiliation
National Defense University
Air Force Academy
Industrial Engineering Department
Istanbul / TURKEY

Profile

Lecturer Industrial engineering Department at National Defense University Air Force Academy, Istanbul, TURKEY. Published more than 15 papers in refereed International Journals and conference proceedings.

Research Interests


List of Publications in Neutrosophics


DOI: http://dx.doi.org/10.5755/j01.ee.29.3.19392


Shahzaib Ashraf

PhD Candidate

Profile

Received MS degree in Mathematics from International Islamic University, Islamabad, Pakistan. Currently he is a PhD scholar at Department of Mathematics, Abdul Wali Khan University, Mardan, Pakistan. Also served the Abdul Wali Khan University as visiting Lecturer. Published 15 research articles in international peer-reviewed journals, including 10 ISI Indexed / IF Journal publications. Some papers have been published in high impact journals including International Journal of Intelligent Systems, Journal of Intelligent and Fuzzy Systems and Symmetry.

Research Interests

Applications of fuzzy systems and related topics, logical algebras; Fuzzy aggregation operators, Fuzzy decision support / decision-making systems.

List of Publications in Neutrosophics

Saranya Shanmugam
PhD Research Scholar

Affiliation
PG and Research Department of Mathematics
Kongunadu Arts and Science College
Coimbatore-641 029 / INDIA

Profile

Born July 1990, Karur, India. In 2010, Received Bachelor of Science degree in Mathematics from Kongunadu Arts and Science College which is affiliated to Bharathiar University, Coimbatore, India. In 2011, Received Bachelor of Education degree from Tamilnadu Teachers Education University, Chennai, India. In 2013, Received Master of Science degree in Mathematics from Kongunadu Arts and Science College, Coimbatore, India. In 2015, Received Master of Philosophy Degree with “Highly Commended” from Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, India. From 2015-17, Worked as an Assistant Professor of Mathematics in M.Kumarasamy College of Engineering, Karur, India. Currently Pursuing Ph.D in Topology (Mathematics) at Kongunadu Arts and Science College, Coimbatore, India. Published more than Six research articles in reputed national and international journals, out of which Three articles are Scopus indexed / WEB of Science.

Research Interests

General Topology, Neutrosofich Topology.

List of Publications in Neutrosophics

S. Saranya, M. Vigneshwaran. Neutrosofich $b^g\alpha$-Interior and Neutrosofich $b^g\alpha$-Closure, American International Journal of Research in Science, Technology, Engineering and


Conferences


S. Saranya and M. Vigneshwaran, “.Net Framework to Deal with Neutrosophic $\alpha$-Sets”, International Conference on Recent Advances in Pure and Applied Mathematics, Department of Mathematics, Arul Anandar College, Madurai on 14 February, 2019.
Dr.

Lilian Shi

Professor

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

Profile

Master degree from Nanjing University of Science and Technology, in 1994. Doctoral degree in technical sciences (PhD) from Zhejiang University, in 2004. Between September 2015-December 2015, visiting scholar in Curtin University, Australia. Currently, professor in the Department of Electrical and Information Engineering, Shaoxing University, P.R. China. Published more than 20 papers in journals, and finished a few projects sponsored by the government of P.R. China.

Research Interests

Neutrosophic theory and applications; pattern recognitions; fault diagnosis.

List of Publications in Neutrosophics


Lilian Shi, Jun Ye. Cosine measures of linguistic neutrosophic numbers and their application in multiple attribute group decision-making. Information 2017. DOI: 10.3390/info8040117


Lilian Shi, Yue Yuan. Hybrid weighted arithmetic and geometric aggregation operator of neutrosophic cubic sets for MADM. *Symmetry* 2019. DOI:10.3390/sym11020278
Dr. Mohammed Al-Shumrani  
Associate Professor

Affiliation
Department of Mathematics, Faculty of Sciences  
King Abdulaziz University, P.O. Box 80203  
Jeddah 21589 / SAUDI ARABIA

Profile


Research Interests


List of Publications in Neutrosophics

Dr. Željko Stević
Assistant Professor

Affiliation
Faculty of Transport and Traffic Engineering Doboj
University of East Sarajevo / BOSNIA and HERZEGOVINA

Profile

Assistant professor at Faculty of Transport and Traffic Engineering Doboj, University of East Sarajevo. He received PhD in Transport and Traffic Engineering from University of Novi Sad, Faculty of Technical Sciences 2018. Interests: logistics; supply chain management; transport; traffic engineering; multi-criteria decision making problems; rough set theory; sustainability; fuzzy set theory, neutrosophic set theory. He has published over 90 papers from the area of his interest. He has contributed outstanding research in the mentioned fields. In all his researches he has provided a very good application studies and practical contributed solving different problems in transportation, logistics, supply chain management, traffic engineering etc. In his doctoral dissertation he developed few MCDM models including one universal model for supplier selection in different fields. His published studies are very well cited in other research that can be seen in ResearchGate and Google Scholar.

List of Publications in Neutrosophics

Salah Hasan Saleh Al-Subhi

*PhD student*

**Affiliation**
Universidad de Ciencias Informáticas (UCI)
Havana / CUBA

**Profile**
PhD student in Technical Sciences (Specialty Artificial Intelligence, Master of Science (Specialty in Telematics) and Informatics Engineer. Editor of *Neutrosophic Set and Systems Journal* (fs.unm.edu/NSS). Editors-in-Chief of *Neutrosophic Coputing and Machine Learning Journal* (fs.unm.edu/NCML).

**Research Interests**
Artificial Intelligence; Data Science, Machine Learning, Neutrosophic Cognitive Maps, Recommender Systems, Multicriteria Decision Support.

**Neutrosophic Research**

**List of Publications in Neutrosophics**

**International congress**
Dr.  

R. Suresh  
Assistant Professor  

Affiliation  
Vivekanandha Nagar, Trichy-620 011  
Tamilnadu / INDIA  

Profile  

Received Endowment prize in M.Sc. First Year and Final Year. Received cash Award for produced 100% results. Received certificate of appreciation for produced good results. Acted as Chief Superintendent and Squad and Chief AUR of Anna university examination in Jan.’2018 examination. Additional coordinator of examination in Kings College of Engineering, Pudukottai. Active member of proposed and organized DST-Sponsored Mathematics popularization and communication during November 2015.

List of Publications in Neutrosophics  

Dr. Madeleine Al-Tahan  
Assistant Professor

Affiliation  
Department of Mathematics and Physics  
Faculty of Arts and Science  
Lebanese International University  
Khyara-West Bekaa / LEBANON

Profile

PhD in Pure Mathematics (Highly distinguished), Faculty of Science, Beirut Arab University (BAU), 2009 – 2013, under the supervision of Professor Dr. Mohammad Abdulrahim (BAU) and Professor Dr. Samer Habre (LAU). Thesis title: Group Representations of High Degree. Masters in Pure Mathematics (Highly distinguished) from the Faculty of Science, Beirut Arab University (BAU), 2007 – 2009, under the supervision of Professor Dr. Mohammad Abdulrahim. Thesis title: Krammer’s representations of the braid and pure braid groups. Research topic: nth group of units. BSc. in Pure Mathematics (Highly distinguished), 2004 –2007. Senior project title: Third group of units.

Research Interests

Hyperstructures, Fuzzy sets, Representation theory.

List of Publications in Neutrosophics


M. Al-Tahan, B. Davvaz. Fundamental group and complete parts of Neutrosophic Quadruple Hv-groups

M. Al-Tahan, B. Davvaz. On some properties of Neutrosophic Quadruple Hv-rings
M. Al-Tahan, B. Davvaz. Neutrosophic Quadruple Hv-modules and their fundamental module

M. Al-Tahan, B. Davvaz. Refined neutrosophic quadruple (po-)hypergroups and their fundamental group
Mohammad Mohseni Takallo
PhD Student

Affiliation
Department of Mathematics
Shahid Beheshti University
Tehran 7561 / IRAN

Profile

PHD Student Fellow (Supervised by Prof. Rajab Ali Borzooei & Prof. Young Bae Jun) at Shahid Beheshti University, Tehran, Iran. MSc from Shahid Beheshti University in Soft Computing, with the thesis: “The Zero Divisor Graph of Lattice” (2017).

Research Interests

Fuzzy, soft and rough set theory in algebraic structures; Graph and Fuzzy graph Theory; Neutrosophic logic; Neutrosophic algebraic structure; Operation Research; Data Envelopment Analysis.

List of Publications in Neutrosophics


Dr.

Mohamed Talea

Professor of Computer Science

Affiliation
Laboratory of Information Processing
Faculty of Science Ben M’Sik, University Hassan II
B.P 7955, Sidi Othman, Casablanca
Bd Driss ELHARTI BP 7955
Casablanca / MOROCCO

Profile

Received his Ph.D. degree in physics from Poitiers University, France, in 2001, he obtained a Doctorate of High Graduate Studies degree from the Hassan II University, Morocco, in 1994. Currently, he is a Professor in the department of physics at Hassan II University, Morocco, and he is the Director of Information Treatment Laboratory. He has published about 200 refereed journal and conference papers.

Research Interests

Systems engineering, security of system information, neutrosophic graph theory.

List of Publications in Neutrosophics


S. Broumi, A. Bakali, M. Talea, F. Smarandache, L. Vladareanu, Computation of Shortest Path Problem in a Network with


Said Broumi; Mohamed Talea; Assia Bakali; Florentin Smarandache, Application of Dijkstra algorithm for solving interval valued neutrosophic shortest path problem, 2016 IEEE Symposium Series on Computational Intelligence (SSCI), pp1 – 6


Broumi, Said; Talea, Mohamed; Bakali, Assia; F. Smarandache; Ullah, Kifayat, Bipolar Neutrosophic Minimum Spanning Tree , Smart Application and Data Analysis for SmartCities (SADASC’18), 2018, pp. 201-206.


Said Broumi, Assia Bakali, Mohamed Talea, Florentin Smarandache, Prem Kumar Singh, Properties of Interval-


Florentin Smarandache (founder and editor)
Encyclopedia of Neutrosophic Researchers, 3rd Volume


Broumi S, Bakali A, Talea M, Smarandache F, Generalized Bipolar Neutrosophic Graphs of Type 1. 20th International Conference on Information Fusion, Xi’an,(2017):1714-1720


Broumi S, Bakali A, Talea M, Smarandache F, Complex Neutrosophic Graphs of Type 1, 2017 IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Gdynia Maritime University, Gdynia, Poland (2017): 432-437


Gai Quek, Said Broumi, Ganeshsree Selvachandran, Assia Bakali, Mohamed Talea and Florentin Smarandache, 2018, Some Results on the Graph Theory for Complex Neutrosophic Sets, Symmetry, 10(6), pp 190.

R. Narmada Devi, N.Kalaivani, S. Broumi and K.A. Venkatesan, Characterizations of Strong and Balanced Neutrosophic

Said Broumi, Assia Bakali, Mohamed Talea, Florentin Smarandache, V. Venkateswara Rao, Bipolar Complex Neutrosophic Graphs of Type 1, Florentin Smarandache, Surapati Pramanik (Editors), pp189-208;

Said Broumi, Assia Bakali, Mohamed Talea, Florentin Smarandache, V. Venkateswara Rao, Interval Complex Neutrosophic Graph of Type 1, Editors: Prof. Florentin Smarandache, Dr. Mohamed Abdel-Basset, Dr. Victor Chang *Neutrosophic Operational Research*, Volume III

Said Broumi; Arindam Dey; Assia Bakali; Mohamed Talea; Florentin Smarandache; Dipak Koley, An algorithmic approach for computing the complement of intuitionistic fuzzy graphs, 2017 13th International Conference on Natural Computation, *Fuzzy Systems and Knowledge*, pp. 474 – 480


Profile

Nguyen Xuan Thao was born on October 28, 1982, in Thai Binh, Viet Nam. He received the B.Sc. and M.S Degrees, in Mathematic from The College of Science Vietnamese National University (VNU), Hanoi, in 2004 and 2009, respectively. Now, he is a lecturer, Department of applied MathInformatics, Faculty of Information Technology, Vietnam National University of Agriculture (VNUA), Viet Nam. He is teaching Calculus, Optimization, Fuzzy logic and its application.

Research Interests

Spectral theory of operator; Fuzzy set theory, Rough set theory, neutrosophic sets and application in data mining, pattern recognition, multi criteria decision making.

Neutrosophic Research

Innovative research in decision making and optimization in uncertain environment: fuzzy, intuitionistic and neutrosophic environment.

List of Publications in Neutrosophics


Kifayat Ullah
PhDStudent, Visiting Lecturer

Affiliation
International Islamic University Islamabad / PAKISTAN

Profile

BS in Mathematics (2010-2014), International Islamic University Islamabad.
MS in Mathematics (2014-2016), International Islamic University Islamabad. PhD in Mathematics (2016 to date).

Research Interests

Generalizations of Fuzzy Sets, Fuzzy Aggregation Operators, Similarity and Distance Measures, Fuzzy Relations, Fuzzy Graph Theory.

List of Publications in Neutrosophics


Banu Pazar Varol
Associate Professor

Profile
Born in August 1980, in Turkey. Graduated from the Kocaeli University with BSc (1999-2003), MSc (2003-2006) and PhD (2006-2012) degrees in Department of Mathematics. Erasmus Exchange Student at the University of Latvia (2010-2011 fall semester). Research Assistant at the Department of Mathematics in Kocaeli University (2005-2012), Assistant Professor in Topology (2013 – 2017) and Associate Professor in the same department since 2017. Published more than 10 research papers in high quality journals. Referee for some journals.

Research Interests
Fuzzy Sets; Fuzzy Topologies; (Fuzzy) Soft Sets and (Fuzzy) Soft Topological Structures; Fuzzy Metric; Single Valued Neutrosophic Sets.

Neutrosophic Research
Apply the theory of Single Valued Neutrosophic Sets in algebraic structures such as group, ring, module, field and etc.

List of Publications in Neutrosophics


Lemnaouar Zedam holds an M.Sc. degree in Mathematics (1997), a Postgraduate degree in Mathematical Logic (2000), and a Doctorate in Mathematics (University of Batna, Algeria, 2005), with a thesis on many-valued algebra. He is currently a Professor at the University of M’sila (Algeria), where he is leading the research group on Fuzzy Mathematics. He has published 4 book chapters and over 40 peer-reviewed international journal publications, including ISI Indexed / IF Journal publications (e.g., Informations Sciences, Fuzzy Sets and Systems, International Journal of General Systems, International Journal of Fuzzy Systems, Iranian Journal of Fuzzy Systems, … etc). He has acted as Supervisor of 10 PhD students, and president of 02 research projects. Reviewer/Referee of several scientific journals, including Mathematical reviews (AMS), Iranian Journal of Fuzzy Systems, Journal of Fuzzy Set Valued Analysis, Neutrosophic Sets and Systems, Measurement Journal, Journal of New Theory … etc. He has acted as member of the European Society for Fuzzy Logic and Technology (Eusflat), International Society of Fuzzy Systems (IFSA) and American Mathematical Society (AMS). Also, a member in the organising and/or programme committee of more than 15 national and international conferences.
Research Interests

Fuzzy sets and their applications, Fuzzy graphs and their applications in some decision-making, Fixed points for (fuzzy) ordered structures, Aggregation operators and their applications.

List of Publications in Neutrosophics

Dr.

Hu Zhao

Professor

Affiliation
School of Science, Xi'an Polytechnic University,
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Profile
Received the MS degree from Shaanxi Normal University in 2007-2010, and PhD degree of Shaanxi Normal University in 2011-2014. Awarded the National scholarship for PhD students in 2013.

Research Interests
Fuzzy Sets; Rough Sets; Neutrosophic Sets; Neutrosophic Multi Criteria Making; fuzzy topology; logic algebra.

List of Publications in Neutrosophics


This is the third 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.