



**INTERNATIONAL
JOURNAL OF
NEUTROSOPHIC
SCIENCE**

Volume 12, 2020

Editor(s) in Chief: Broumi Said & Florentin Smarandache

**ISSN(ONLINE): 2690-6805
ISSN(PRINT) : 22692-6148**



Table of Content

International Journal of Neutrosophic Science (IJNS)

Items	Page Number
Table of Contents	2
Editorial Board	4
Aim and Scope	6
Topics of Interest	6
ISSUE 1	
<i>True-False Set is a particular case of the Refined Neutrosophic Set</i> <i>Florentin Smarandache , Said Broumi</i>	9-12
An Introduction to Neutro-Fine Topology with Separation Axioms and Decision Making V. Chinnadurai , M. P. Sindhu	13-28
Neutrosophic Vague Incidence Graph <i>S. Satham Hussain , R. Jahir Hussain , M. Vignesh Babu</i>	29-38
Neutrosophic Soft Block Matrices And Some Of Its Properties <i>Mamoni Dhar</i>	39-49
Pairwise Pythagorean Neutrosophic Strongly Irresolvable Spaces (with dependent neutrosophic (components between T and F <i>R.Jansi , K.Mohana</i>	50-57
ISSUE 2	
Decision Making on Teachers' adaptation to Cybergogy in Saturated Interval- valued Refined Neutrosophic overset /underset /offset Environment <i>Nivetha Martin , Priya.R , Florentin Smarandache</i>	58-70
Introduction to AntiGroup <i>A.A.A. Agboola</i>	71--80
n-Cyclic Refined Neutrosophic Algebraic Systems of Sub-Indeterminacies, An Application to Rings and Modules <i>Mohammad Abobala</i>	81-95
Completeness and Compactness in Standard Single Valued Neutrosophic Metric Spaces <i>Soheyb Milles , Abdelkrim Latrech , Omar Barkat</i>	96-104
Applications of Neutrosophic Logic of Smart Agriculture via Internet of Things <i>Selçuk Topal , Ferhat Taş , Said Broumi , Oguz Ayhan Kirecci</i>	105-115

International Journal of Neutrosophic Science (IJNS) ABSTRACTED/INDEXED IN

Google Scholar



Index Copernicus (ICI World of Journals)



BASE Search



Microsoft Academic



Advanced Science Index (ASI)



EuroPub



WorldCat





Editorial Board

Editor in Chief

Dr. Broumi Said Laboratory of Information Processing, Faculty of Science Ben M'Sik, University Hassan II, Casablanca, Morocco

Prof. Dr. Florentin Smarandache Departement of Mathematics, University of New Mexico, 705 Gurley Avenue, Gallup, NM, 87301, United States

Editorial Board Members :

Francisco Gallego Lupianez, Department of Mathematics, Universidad Complutense, Madrid, Spain. (fg_lupianez@mat.ucm.es)

Cengiz Kahraman, Istanbul Technical University, Department of Industrial Engineering 34367 Macka/Istanbul/Turkey (kahramanc@itu.edu.tr).

Selçuk Topal, Department of Mathematics, Bitlis Eren University, Turkey (s.topal@beu.edu.tr).

Muhammad Aslam, Department of Statistics, Faculty of Science, King Abdulaziz University, Jeddah 21551, Saudi Arabia (aslam_ravian@hotmail.com); (magmuhammad@kau.edu.sa).

Philippe Schweizer, Independent researcher, Av. de Lonay 11, 1110 Morges, Switzerland (flippe2@gmail.com).

Amira Salah Ahmed Ashour, Tanta University, Tanta, Egypt (amirasashour@yahoo.com); (amira.salah@f-eng.tanta.edu.eg).

Peide Liu, School of Management Science and Engineering, Shandong University of Finance and Economics, China (peide.liu@gmail.com).

Jun Ye, Institute of Rock Mechanics, Ningbo University, Ningbo, P. R, China (vehjun@aliyun.com); (yejun1@nbu.edu.cn).

Yanhui Guo, Department of Computer Science, University of Illinois at Springfield, USA (yguo56@uis.edu) (guoyanhui@gmail.com).

İrfan DELİ, Kilis 7 Aralık University, Turkey (irfandeli20@gmail.com).

Vakkas Uluçay, Kilis 7 Aralık University, Turkey (yulucay27@gmail.com).

Chao Zhang, Key Laboratory of Computational Intelligence and Chinese Information Processing of Ministry of Education, School of Computer and Information Technology, Shanxi University, China (czhang@sxu.edu.cn).

Xindong Peng, Shaoguan University, China (952518336@qq.com).

Surapati Pramanik, Department of Mathematics, Nandalal Ghosh B.T. College, Panpur, P.O.-Narayanpur, Dist-North 24 Parganas, West Bengal, PIN-743126, India (surapati.math@gmail.com).

M. Lathamaheswari, Department of Mathematics Hindustan Institute of Technology and Science, Chennai-603203, India (lathamax@gmail.com); (mlatham@hindustanuniv.ac.in).

Lemnaouar Zedam, Department of Mathematics, University of M'sila, Algeria (lemnaouar.zedam@univ-msila.dz).

S. A. Edalatpanah, Department of Applied Mathematics, Ayandegan Institute of Higher Education, Tonekabon, Iran (saedalatpanah@gmail.com).

Liu Chun Feng, Shenyang Aerospace University, China (liuchunfang1112@163.com).

Wadei faris Mohammed Al-omeri, Department of Mathematics, Faculty of Science, Al-Balqa Applied University, Salt 19117, Jordan (wadeimoon1@hotmail.com, wadeialomeri@bau.edu.jo).

Abhijit Saha, Department of Mathematics, Techno College of Engineering Agartala Maheshkhola-799004, Tripura, India (abhijit84.math@gmail.com).

D.Nagarajan, Department of Mathematics, Hindustan Institute of Technology & Science, India (dnagarajan@hindustanuniv.ac.in).

Prem Kumar Singh, Amity Institute of Information Technology, Amity University-Sector 125 Noida-201313, Uttar Pradesh-India (premsingh.csjm@gmail.com).

Avishek Chakraborty, Department of Basic Science, University/College- Narula Institute of Technology Under MAKAUT, India (tirtha.avishek93@gmail.com).

Arindam Dey, Department of Computer Science and Engineering, Saroj Mohan Institute of Technology, Hooghly 712512, West Bengal, India (arindam84nit@gmail.com).

Muhammad Gulistan, Department of Mathematics & Statistics, Hazara University Mansehra, Khyber Pakhtunkhwa, Pakistan (gulistanmath@hu.edu.pk).

Mohsin Khalid, The University of Lahore, Pakistan (mk4605107@gmail.com).

Le Hoang Son, PhD, Vietnam National University, Hanoi, Vietnam, (sonlh@vnu.edu.vn).

Kishore Kumar P.K, Department of Information Technology, Al Musanna College of Technology, Sultanate of Oman (kishore2982@gmail.com).

Mohamed Talea, Laboratory of Information processing, Faculty of Science Ben M'Sik, Morocco (taleamohamed@yahoo.fr).

Assia Bakali, Ecole Royale Navale, Casablanca, Morocco (assiabakali@yahoo.fr).

Tahir Mahmood, Department of Mathematics and Statistics, International Islamic University Islamabad, Pakistan (tahirbakhath@iiu.edu.pk).

Faruk KARAASLAN, Çankırı Karatekin University, Faculty of Sciences, Department of Mathematics, 18100, Çankırı, TURKEY (fkaraaslan@karatekin.edu).

Mohamed Abdel-Basset, Department of Computer Science, Zagazig University, Egypt (analyst_mohamed@yahoo.com, analyst_mohamed@zu.edu.eg).

Riad Khider AlHamido, Department of mathematics Faculty of Sciences - Al- Furat University, Syria (riad-hamido1983@hotmail.com).

Fahad Mohammed Alsharari, Mathematics Department, College of Science and Human Studies at Hotat Sudair, Majmaah University, Saudi Arabia (f.alsharari@mu.edu.sa).

Maikel Leyva Vázquez, Universidad Politécnica Salesiana, Ecuador (mleyvaz@gmail.com).

Ir. Victor Christianto, DDiv. (associate of NSIA), Satyabhakti Advanced School of Theology - Jakarta Chapter, Indonesia (victorchristianto@gmail.com).

Xiaohong Zhang, Shaanxi University of Science and Technology, China (zhangxiaohong@sust.edu.cn, zxhonghz@263.net).

Huda E. Khalid, Head of the Scientific Affairs and Cultural Relations, Presidency of Telafer University ,Iraq (hodaesmail@yahoo.com, dr.huda-ismael@uotelafer.edu.iq).

Ranjan Kumar, Department of Mathematics, National Institute of Technology, Adityapur, Jamshedpur, 831014, India. (ranjank.nit52@gmail.com).

Choonkil Park, Department of Mathematics, Hanyang University, Republic of Korea (baak@hanyang.ac.kr).

Shahzaib Ashraf, Department of Mathematic Abdul Wali Khan University, Mardan 23200, Pakistan (shahzaibashraf@awkum.edu.pk).

Madeleine Al-Tahan, Lebanese International University, Lebanon (madeline.tahan@liu.edu.lb).

Rafif alhabib, Department of mathematical statistic, Faculty of Sciences, albaath University, Syria. (rafif.alhabib85@gmail.com)

Giorgio Nardo, MIFT - Department of Mathematical and Computer Science, Physical Sciences and Earth Sciences, Messina University, Italy. (giorgio.nardo@unime.it)

Angelo de Oliveira, Departamento Academico de Ciencia da Computacao - Universidade Federal de Rondonia, Brasil, (angelo@unir.br)

A.A.A. Agboola, Department of Mathematics, Federal University of Agriculture, Abeokuta, Nigeria, (agboolaaaa@funaab.edu.ng)

A. A. Salama, Department of Mathematics and Computer Science, Faculty of Science, Port Said University, Port Said, Egypt, (drsalama44@gmail.com)

Akbar Rezaei, Department of Mathematics, Payame Noor University, P.O.Box. 19395-3697, Tehran, IRAN, (rezaei@pnu.ac.ir)

Ahmed Hatip, Department of Mathematics, Gaziantep University, Turkey, (kollnaar5@gmail.com)

Metawee Songsaeng, Department of Mathematics, School of Science, University of Phayao, Phayao 56000, Thailand, (metawee.faith@gmail.com)

Kavikumar Jacob, Department of Mathematics and Statistics, Faculty of Applied Sciences and Technology Universiti Tun Hussein Onn Malaysia, 86400 Malaysia. (kavi@uthm.edu.my)

Kifayat Ullah, Department of Mathematics and Statistics, International Islamic University Islamabad, Pakistan

M.B.Zeina, University of Aleppo, Aleppo-Syria (bisherzeina@alepuniv.edu.sy).

Fatimah Mahmood Mohammed, Department of Mathematic, College of Education for Pure Sciences, Tikrit University, Tikrit, IRAQ (dr.fatimahmahmood@tu.edu.iq)

Sadi Bayramov, Department of Algebra and Geometry, Baku State University, Baku, Azerbaijan (baysadi@gmail.com)

Qin Xin, Faculty of Science and Technology, University of the Faroe Islands, Vestarabryggja 15, FO 100 Torshavn, Faroe Islands (QinX@setur.fo)

Darjan Karabašević, Faculty of Applied Management, Economics and Finance in Belgrade - MEF, University Business Academy in Novi Sad, Serbia

Dragisa Stanujkic, Technical Faculty in Bor, University of Belgrade, Bor, Serbia, (dstanujkic@tfbor.bg.ac.rs)



Aim and Scope

International Journal of Neutrosophic Science (IJNS) is a peer-review journal publishing high quality experimental and theoretical research in all areas of Neutrosophic and its Applications. IJNS is published quarterly. IJNS is devoted to the publication of peer-reviewed original research papers lying in the domain of neutrosophic sets and systems. Papers submitted for possible publication may concern with foundations, neutrosophic logic and mathematical structures in the neutrosophic setting. Besides providing emphasis on topics like artificial intelligence, pattern recognition, image processing, robotics, decision making, data analysis, data mining, applications of neutrosophic mathematical theories contributing to economics, finance, management, industries, electronics, and communications are promoted. Variants of neutrosophic sets including refined neutrosophic set (RNS). Articles evolving algorithms making computational work handy are welcome.

Topics of Interest

IJNS promotes research and reflects the most recent advances of neutrosophic Sciences in diverse disciplines, with emphasis on the following aspects, but certainly not limited to:

- Neutrosophic sets
- Neutrosophic algebra
- Neutrosophic topolog
- Neutrosophic graphs
- Neutrosophic probabilities
- Neutrosophic tools for decision making
- Neutrosophic theory for machine learning
- Neutrosophic statistics
- Neutrosophic numerical measures
- Classical neutrosophic numbers
- A neutrosophic hypothesis
- The neutrosophic level of significance
- The neutrosophic confidence interval
- The neutrosophic central limit theorem
- Neutrosophic theory in bioinformatics
- Neutrosophic tools for big data analytics
- and medical analytics
- Neutrosophic tools for data visualization
- Neutrosophic tools for deep learning
- Refined single-valued neutrosophic sets
- Quadripartitioned single-valued
- Applications of neutrosophic logic in image processing
- neutrosophic sets
- Neutrosophic logic for feature learning, classification, regression, and clustering

- Neutrosophic knowledge retrieval of medical images
- Neutrosophic set theory for large-scale image and multimedia processing
- Neutrosophic set theory for brain-machine interfaces and medical signal analysis
- Applications of neutrosophic theory in large-scale healthcare data
- Neutrosophic set-based multimodal sensor data
- Neutrosophic set-based array processing and analysis
- Wireless sensor networks Neutrosophic set-based Crowd-sourcing
- Neutrosophic set-based heterogeneous data mining
- Neutrosophic in Virtual Reality
- Neutrosophic and Plithogenic theories in Humanities and Social Sciences
- Neutrosophic and Plithogenic theories in decision making
- Neutrosophic in Astronomy and Space Sciences

Published and typeset in American Scientific Publishing Group (ASPG) is a USA academic publisher, established as LLC company on 2019 at New Orleans, Louisiana, USA. ASPG publishes online scholarly journals that are free of submission charges.

Copyright © 2020 American Scientific Publishing Group (ASPG)

American Scientific Publishing Group (ASPG) LLC,
New Orleans, USA

Mailing Address: 625 Wright Ave, Gretna, LA 70056, USA

Phone: +1(504) 336-3385

Fax: +1-888-417-7465

e-mail: manager@americaspg.com

www.americaspg.com