

Journal For Fuzzy Graph Theory Domination Number

“Neutrosophic Sets and Systems” has been created for publications on advanced studies in neutrosophy, neutrosophic set, neutrosophic logic, neutrosophic probability, neutrosophic statistics that started in 1995 and their applications in any field, such as the neutrosophic structures developed in algebra, geometry, topology, etc. In this issue: On Neutrosophic Crisp Sets and Neutrosophic Crisp Mathematical Morphology, New Results on Pythagorean Neutrosophic Open Sets in Pythagorean Neutrosophic Topological Spaces, Comparative Mathematical Model for Predicting of Financial Loans Default using Altman Z-Score and Neutrosophic AHP Methods.

This book systemically presents the latest research findings in fuzzy RDF data modeling and management. Fuzziness widely exist in many data and knowledge intensive applications. With the increasing amount of metadata available, efficient and scalable management of massive semantic data with uncertainty is of crucial importance. This book goes to great depth concerning the fast-growing topic of technologies and approaches of modeling and managing fuzzy metadata with Resource Description Framework (RDF) format. Its major topics include representation of fuzzy RDF data, fuzzy RDF graph matching, query of fuzzy RDF data, and persistence of fuzzy RDF data in diverse databases. The objective of the book is to provide the state-of-the-art information to researchers, practitioners, and postgraduates students who work on the area of big data intelligence and at the same time serve as the uncertain data and knowledge engineering professional as a valuable real-world reference.

Graph theory is a specific concept that has numerous applications throughout many industries. Despite the advancement of this technique, graph theory can still yield ambiguous and imprecise results. In order to cut down on these indeterminate factors, neutrosophic logic has emerged as an applicable solution that is gaining significant attention in solving many real-life decision-making problems that involve uncertainty, impreciseness, vagueness, incompleteness, inconsistency, and indeterminacy. However, empirical research on this specific graph set is lacking. Neutrosophic Graph Theory and Algorithms is a collection of innovative research on the methods and applications of neutrosophic sets and logic within various fields including systems analysis, economics, and transportation. While highlighting topics including linear programming, decision-making methods, and homomorphism, this book is ideally designed for programmers, researchers, data scientists, mathematicians, designers, educators, academicians, and students seeking current research on the various methods and applications of graph theory.

This book builds on two recently published books by the same authors on fuzzy graph theory. Continuing in their tradition, it provides readers with an extensive set of tools for applying fuzzy mathematics and graph theory to social problems such as human trafficking and illegal immigration. Further, it especially focuses on advanced concepts such as connectivity and Wiener indices in fuzzy graphs, distance, operations on fuzzy graphs involving t-norms, and the application of dialectic synthesis in fuzzy graph theory. Each chapter also discusses a number of key, representative applications. Given its approach, the book provides readers with an authoritative, self-contained guide to – and at the same time an inspiring read on – the theory and modern applications of fuzzy graphs. For newcomers, the book also includes a brief introduction to fuzzy sets, fuzzy relations and fuzzy graphs.

International Journal of Mathematical Combinatorics, Volume 3, 2016

INTERVAL TYPE-2 FUZZY SETS AND INTERVAL NEUTROSOPHIC SETS IN INTELLIGENT SYSTEMS

Volume 1

Japanese Journal of Fuzzy Theory and Systems

Grand Challenges—Human Trafficking—Coronavirus—Biodiversity and Extinction

Fuzzy Sets and Their Applications to Cognitive and Decision Processes contains the proceedings of the U.S.-Japan Seminar on Fuzzy Sets and Their Applications, held at the University of California in Berkeley, California, on July 1-4, 1974. The seminar provided a forum for discussing a broad spectrum of topics related to the theory of fuzzy sets, ranging from its mathematical aspects to applications in human cognition, communication, decision making, and engineering systems analysis. Comprised of 19 chapters, this book begins with an introduction to the calculus of fuzzy restrictions, followed by a discussion on fuzzy programs and their execution. Subsequent chapters focus on fuzzy relations, fuzzy graphs, and their applications to clustering analysis; risk and decision making in a fuzzy environment; fractionally fuzzy grammars and their application to pattern recognition; and applications of fuzzy sets in psychology. An approach to pattern recognition and associative memories using fuzzy logic is also described. This monograph will be of interest to students and practitioners in the fields of computer science, engineering, psychology, and applied mathematics.

A considerable number of problems have been included. Many of these are quite simple; others are more in the nature of proposed research problems.

An advantage of dealing indeterminacy is possible only with Neutrosophic Sets. Graph theory plays a vital role in the field of networking. If uncertainty exist in the set of vertices and edge then that can be dealt by fuzzy graphs in any application and using Neutrosophic Graph uncertainty of the problems can be completely dealt with the concept of indeterminacy. In this paper, Dombi Interval Valued Neutrosophic Graph has been proposed and Cartesian product and composition of the proposed graphs have been derived.

Topics in detail to be covered are: Smarandache multi-spaces with applications to other sciences, such as those of algebraic multi-systems, multi-metric spaces; Smarandache geometries; Differential Geometry; Geometry on manifolds; Topological graphs; Algebraic graphs; Random graphs; Combinatorial maps; Graph and map enumeration; Combinatorial designs; Combinatorial enumeration; Low Dimensional Topology; Differential Topology; Topology of Manifolds; Geometrical aspects of Mathematical Physics and Relations with Manifold Topology; Applications of Smarandache multi-spaces to theoretical physics; Applications of Combinatorics to mathematics and theoretical physics.

Constant single valued neutrosophic graphs with applications

Elementary Fuzzy Matrix Theory and Fuzzy Models for Social Scientists

Certain Properties of Bipolar Neutrosophic Graphs

International Journal of Mathematical Combinatorics, Volume 4, 2011

Modern Trends in Fuzzy Graph Theory

Fuzzy theory has become a subject that generates much interest among the courses for graduate students. However, it was not easy to find a suitable textbook to use in the introductory course and to recommend to the students who want to self-study. The main purpose of this book is just to meet that need. The author has given lectures on the fuzzy theory and its applications for ten years and continuously developed lecture notes on the subject. This book is a publication of the modification and summary of the lecture notes. The fundamental idea of the book is to provide basic and concrete concepts of the fuzzy theory and its applications, and thus the author focused on easy illustrations of the basic concepts. There are numerous examples and figures to help readers to understand and also added exercises at the end of each chapter. This book consists of two parts: a theory part and an application part. The first part (theory part) includes chapters from 1 to 8. Chapters 1 and 2 introduce basic concepts of fuzzy sets and operations, and Chapters 3 and 4 deal with the multi-dimensional fuzzy sets. Chapters 5 and 6 are extensions of the fuzzy theory to the number and function, and Chapters 7 and 8 are developments of fuzzy properties on the probability and logic theories.

This book provides readers with an introduction to m-polar fuzzy graphs and m-polar fuzzy hypergraphs, covering both theories and applications. A special emphasis is given to m-polar fuzzy graphs at the aim of filling a gap in the literature, namely the absence of a mathematical approach to analyze multi-index, multipolar, and multi-attribute data. The book describes metrics and labeling in m-polar graphs, m-polar fuzzy matroids. It also discusses in detail important applications in decision-making problems and imaging processing. The book is expected to stimulate the curiosity of mathematics, computer scientists, and social scientists alike, and to provide both students and researchers with the necessary knowledge to understand and apply m?polar fuzzy graph theory.

In the beginning of 1983, I came across A. Kaufmann's book "Introduction to the theory of fuzzy sets" (Academic Press, New York, 1975). This was my first acquaintance with the fuzzy set theory. Then I tried to introduce a new component (which determines the degree of non-membership) in the definition of these sets and to study the properties of the new objects so defined. I defined ordinary operations as "n", "U", "+ and "." over the new sets, but I had began to look more seriously at them since April 1983, when I defined operators analogous to the modal operators of "necessity" and "possibility". The late George Gargov (7 April 1947 - 9 November 1996) is the "god father" of the sets I introduced - in fact, he has invented the name "intu itionistic fuzzy", motivated by the fact that the law of the excluded middle does not hold for them. Presently, intuitionistic fuzzy sets are an object of intensive research by scholars and scientists from over ten countries. This book is the first attempt for a more comprehensive and complete report on the intuitionistic fuzzy set theory and its more relevant applications in a variety of diverse fields. In this sense, it has also a referential character.

In this paper, we discuss spacial types of bipolar neutrosophic graphs, including edge irregular bipolar neutrosophic graphs and totally edge irregular bipolar neutrosophic graphs. We illustrate these types by several examples and investigate some of their interesting properties.

Fuzzy Sets and Their Applications to Cognitive and Decision Processes

Proceedings of the U.S.–Japan Seminar on Fuzzy Sets and Their Applications, Held at the University of California, Berkeley, California, July 1-4, 1974

Advanced Topics in Fuzzy Graph Theory

Neutrosophic Sets and Systems, Vol. 43, 2021

Modeling and Management of Fuzzy Semantic RDF Data

In the world of mathematics and computer science, technological advancements are constantly being researched and applied to ongoing issues. Setbacks in social networking, engineering, and automation are themes that affect everyday life, and researchers have been looking for new techniques in which to solve these challenges. Graph theory is a widely studied topic that is now being applied to real-life problems. The Handbook of Research on Advanced Applications of Graph Theory in Modern Society is an essential reference source that discusses recent developments on graph theory, as well as its representation in social networks, artificial neural networks, and many complex networks. The book aims to study results that are useful in the fields of robotics and machine learning and will examine different engineering issues that are closely related to fuzzy graph theory. Featuring research on topics such as artificial neural systems and robotics, this book is ideally designed for mathematicians, research scholars, practitioners, professionals, engineers, and students seeking an innovative overview of graphic theory.

Social network analysis has created novel opportunities within the field of data science. The complexity of these networks requires new techniques to optimize the extraction of useful information. Graph Theoretic Approaches for Analyzing Large-Scale Social Networks is a pivotal reference source for the latest academic research on emerging algorithms and methods for the analysis of social networks. Highlighting a range of pertinent topics such as influence maximization, probabilistic exploration, and distributed memory, this book is ideally designed for academics, graduate students, professionals, and practitioners actively involved in the field of data science.

Provides readers with the foundations of fuzzy mathematics as well as more advanced topics A Modern Introduction to Fuzzy Mathematics provides a concise presentation of fuzzy mathematics., moving from proofs of important results to more advanced topics, like fuzzy algebras, fuzzy graph theory, and fuzzy topologies. The authors take the reader through the development of the field of fuzzy mathematics, starting with the publication in 1965 of Lotfi Asker Zadeh's seminal paper, Fuzzy Sets. The book begins with the basics of fuzzy mathematics before moving on to more complex topics, including: Fuzzy sets Fuzzy numbers Fuzzy relations Possibility theory Fuzzy abstract algebra And more Perfect for advanced undergraduate students, graduate students, and researchers with an interest in the field of fuzzy mathematics, A Modern Introduction to Fuzzy Mathematics walks through both foundational concepts and cutting-edge, new mathematics in the field.

Lotfi Zadeh introduced the notion of a fuzzy subset of a set in 1965. His seminal paper has opened up new insights and applications in a wide range of scientific fields. Azriel Rosenfeld used the notion of a fuzzy subset to put forth cornerstone papers in several areas of mathematics, among other disciplines. Rosenfeld is the father of fuzzy abstract algebra. Kuroki is re sponsible for much of fuzzy ideal theory of semigroups. Others who worked on fuzzy semigroup theory, such as Xie, are mentioned in the bibliogra phy. The purpose of this book is to present an up to date account of fuzzy subsemigroups and fuzzy ideals of a semigroup. We concentrate mainly on theoretical aspects, but we do include applications. The applications are in the areas of fuzzy coding theory, fuzzy finite state machines, and fuzzy languages. An extensive account of fuzzy automata and fuzzy languages is given in [100]. Consequently, we only consider results in these areas that have not appeared in [100] and that pertain to semigroups. In Chapter 1, we review some basic results on fuzzy subsets, semigroups, codes, finite state machines, and languages. The purpose of this chapter is to present basic results that are needed in the remainder of the book. In Chapter 2, we introduce certain fuzzy ideals of a semigroup, namely, fuzzy two-sided ideals, fuzzy bi-ideals, fuzzy interior ideals, fuzzy quasi ideals, and fuzzy generalized bi-ideals.

Handbook of Research on Advanced Applications of Graph Theory in Modern Society

A Modern Introduction to Fuzzy Mathematics

Applications of Mathematics of Uncertainty

Fuzzy Engineering and Operations Research

Fuzzy Graph Theory with Applications to Human Trafficking

Fuzzy logic, which is based on the concept of fuzzy set, has enabled scientists to create models under conditions of imprecision, vagueness, or both at once. As a result, it has now found many important applications in almost all sectors of human activity, becoming a complementary feature and supporter of probability theory, which is suitable for modelling situations of uncertainty derived from randomness. Fuzzy mathematics has also significantly developed at the theoretical level, providing important insights into branches of traditional mathematics like algebra, analysis, geometry, topology, and more. With such widespread applications, fuzzy sets and logic are an important area of focus in mathematics. The Handbook of Research on Advances and Applications of Fuzzy Sets and Logic studies recent theoretical advances of fuzzy sets and numbers, fuzzy systems, fuzzy logic and their generalizations, extensions, and more. This book also explores the applications of fuzzy sets and logic applied to science, technology, and everyday life to further provide research on the subject. This book is ideal for mathematicians, physicists, computer specialists, engineers, practitioners, researchers, academicians, and students who are looking to learn more about fuzzy sets, fuzzy logic, and their applications.

In this thesis, interval type-2 fuzzy sets (IT2FSs) and interval neutrosophic sets (INSS) have been considered for all the proposed concepts. Fusion of information is an essential task to get the optimized solution for any real world problem. In this task, aggregation operators are playing an important role in all the fields. Since most of the realistic problems have uncertainty in nature, one can use the logic of fuzzy and neutrosophic theory. For the entire proposed concepts interval based logic has been used as it handles more uncertainty.

Neutrosophic graph (NG) is a powerful tool in graph theory, which is capable of modeling many real-life problems with uncertainty due to unclear, varying, and indeterminate information. Meanwhile, the fuzzy graphs (FGs) and intuitionistic fuzzy graphs (IFGs) may not handle these problems as efficiently as NGs. It is difficult to model uncertainty due to imprecise information and vagueness in real-world scenarios. Many real-life optimization problems are modeled and solved using the well-known fuzzy graph theory.

In the world of mathematics, the study of fuzzy relations and its theories are well-documented and a staple in the area of calculative methods. What many researchers and scientists overlook is how fuzzy theory can be applied to industries outside of arithmetic. The framework of fuzzy logic is much broader than professionals realize. There is a lack of research on the full potential this theoretical model can reach. The Handbook of Research on Emerging Applications of Fuzzy Algebraic Structures provides emerging research exploring the theoretical and practical aspects of fuzzy set theory and its real-life applications within the fields of engineering and science. Featuring coverage on a broad range of topics such as complex systems, topological spaces, and linear transformations, this book is ideally designed for academicians, professionals, and students seeking current research on innovations in fuzzy logic in algebra and other matrices.

Fuzzy Semigroups

Handbook of Research on Emerging Applications of Fuzzy Algebraic Structures

International Journal of Mathematical Combinatorics, Volume 4, 2018

Neutrosophic Sets and Systems: An International Book Series in Information Science and Engineering, vol. 24 / 2018

Theory and Applications

“Neutrosophic Sets and Systems” has been created for publications on advanced studies in neutrosophy, neutrosophic set, neutrosophic logic, neutrosophic probability, neutrosophic statistics that started in 1995 and their applications in any field, such as the neutrosophic structures developed in algebra, geometry, topology, etc.

Fuzzy graph theory is a useful and well-known tool to model and solve many real-life optimization problems. Since real-life problems are often uncertain due to inconsistent and indeterminate information, it is very hard for an expert to model those problems using a fuzzy graph. A neutrosophic graph can deal with the uncertainty associated with the inconsistent and indeterminate information of any real-world problem, where fuzzy graphs may fail to reveal satisfactory results.

In the course of fuzzy technological development, fuzzy graph theory was identified quite early on for its importance in making things work. Two very important and useful concepts are those of granularity and of nonlinear ap proximations. The concept of granularity has evolved as a cornerstone of Lotfi A.Zadeh's theory of perception, while the concept of nonlinear approx imation is the driving force behind the success of the consumer electronics products manufacturing. It is fair to say fuzzy graph theory paved the way for engineers to build many rule-based expert systems. In the open literature, there are many papers written on the subject of fuzzy graph theory. However, there are relatively books available on the very same topic. Professors' Mordeson and Nair have made a real contribution in putting together a very com prehensive book on fuzzy graphs and fuzzy hypergraphs. In particular, the discussion on hypergraphs certainly is an innovative idea. For an experienced engineer who has spent a great deal of time in the lab oratory, it is usually a good idea to revisit the theory. Professors Mordeson and Nair have created such a volume which enables engineers and design ers to benefit from referencing in one place. In addition, this volume is a testament to the numerous contributions Professor John N. Mordeson and his associates have made to the mathematical studies in so many different topics of fuzzy mathematics.

The present book contains 20 articles collected from amongst the 53 total submitted manuscripts for the Special Issue “Fuzzy Sets, Fuzzy Loigic and Their Applications” of the MDPI journal Mathematics. The articles, which appear in the book in the series in which they were accepted, published in Volumes 7 (2019) and 8 (2020) of the journal, cover a wide range of topics connected to the theory and applications of fuzzy systems and their extensions and generalizations. This range includes, among others, management of the uncertainty in a fuzzy environment; fuzzy assessment methods of human-machine performance; fuzzy graphs; fuzzy topological and convergence spaces; bipolar fuzzy relations; type-2 fuzzy; and intuitionistic, interval-valued, complex, picture, and Pythagorean fuzzy sets, soft sets and algebras, etc. The applications presented are oriented to finance, fuzzy analytic hierarchy, green supply chain industries, smart health practice, and hotel selection. This wide range of topics makes the book interesting for all those working in the wider area of Fuzzy sets and systems and of fuzzy logic and for those who have the proper mathematical background who wish to become familiar with recent advances in fuzzy mathematics, which has entered to almost all sectors of human life and activity.

First Course on Fuzzy Theory and Applications

Fuzzy Set Theory — and Its Applications

Recent Advances in Computer Science and Information Engineering

Dombi Interval Valued Neutrosophic Graph and its Role in Traffic Control Management

Theory, Methods & Applications

This book provides an extensive set of tools for applying fuzzy mathematics and graph theory to real-life problems. Balancing the basics and latest developments in fuzzy graph theory, this book starts with existing fundamental theories such as connectivity, isomorphism, products of fuzzy graphs, and different types of paths and arcs in fuzzy graphs to focus on advanced concepts such as planarity in fuzzy graphs, fuzzy competition graphs, fuzzy threshold graphs, fuzzy tolerance graphs, fuzzy trees, coloring in fuzzy graphs, bipolar fuzzy graphs, intuitionistic fuzzy graphs, m-polar fuzzy graphs, applications of fuzzy graphs, and more. Each chapter includes a number of key representative applications of the discussed concept. An authoritative, self-contained, and inspiring read on the theory and modern applications of fuzzy graphs, this book is of value to advanced undergraduate and graduate students of mathematics, engineering, and computer science, as well as researchers interested in new developments in fuzzy logic and applied mathematics.

CSIE 2011 is an international scientific Congress for distinguished scholars engaged in scientific, engineering and technological research, dedicated to build a platform for exploring and discussing the future of Computer Science and Information Engineering with existing and potential application scenarios. The congress has been held twice, in Los Angeles, USA for the first and in Changchun, China for the second time, each of which attracted a large number of researchers from all over the world. The congress turns out to develop a spirit of cooperation that leads to new friendship for addressing a wide variety of ongoing problems in this vibrant area of technology and fostering more collaboration over the world. The congress, CSIE 2011, received 2483 full paper and abstract submissions from 27 countries and regions over the world. Through a rigorous peer review process, all submissions were refereed based on their quality of content, level of innovation, significance, originality and legibility. 688 papers have been accepted for the international congress proceedings ultimately.

This book provides readers with a snapshot of the state-of-the art in fuzzy logic. Throughout the chapters, key theories developed in the last fifty years as well as important applications to practical problems are presented and discussed from different perspectives, as the authors hail from different disciplines and therefore use fuzzy logic for different purposes. The book aims at showing how fuzzy logic has evolved since the first theory formulation by Lotfi A. Zadeh in his seminal paper on Fuzzy Sets in 1965. Fuzzy theories and implementation grew at an impressive speed and achieved significant results, especially on the applicative side. The study of fuzzy logic and its practice spread all over the world, from Europe to Asia, America and Oceania. The editors believe that, thanks to the drive of young researchers, fuzzy logic will be able to face the challenging goals posed by computing with words. New frontiers of knowledge are waiting to be explored. In order to motivate young people to engage in the future development of fuzzy logic, fuzzy methodologies, fuzzy applications, etc., the editors invited a team of internationally respected experts to write the present collection of papers, which shows the present and future potentials of fuzzy logic from different disciplinary perspectives and personal standpoints.

In this paper, we introduced a new concept of single valued neutrosophic graph (SVNG) known as constant single valued neutrosophic graph (CSVNG). Basically, SVNG is a generalization of intuitionistic fuzzy graph (IFG). More specifically, we described and explored

somegraph theoretic ideas related to the introduced concepts of CSVNG. An application of CSVNG in a Wi-Fi network system is discussed and a comparison of CSVNG with constant IFG is established showing the worth of the proposed work. Further, several terms like constant function and totally constant function are investigated in the frame-work of CSVNG and their characteristics are studied.

Novel System and Method for Telephone Network Planing based on Neutrosophic Graph

International Journal of Mathematical Combinatorics, Volume 3, 2017

Theory of Graphs

Fuzzy Sets, Fuzzy Logic and Their Applications

Towards the Future of Fuzzy Logic

Telephony is gaining momentum in the daily lives of individuals and in the activities of all companies. With the great trend towards telephony networks, whether analogue or digital known as Voice over IP (VoIP), the number of calls an individual can receive becomes considerably high.

This book reports on advanced concepts in fuzzy graph theory, showing a set of tools that can be successfully applied to understanding and modeling illegal human trafficking. Building on the previous book on fuzzy graph by the same authors, which set the fundamentals for readers to understand this developing field of research, this second book gives a special emphasis to applications of the theory. For this, authors introduce new concepts, such as intuitionistic fuzzy graphs, the concept of independence and domination in fuzzy graphs, as well as directed fuzzy networks, incidence graphs and many more.

This book provides a timely overview of fuzzy graph theory, laying the foundation for future applications in a broad range of areas. It introduces readers to fundamental theories, such as Craine's work on fuzzy interval graphs, fuzzy analogs of Marczewski's theorem, and the Gilmore and Hoffman characterization. It also introduces them to the Fulkerson and Gross characterization and Menger's theorem, the applications of which will be discussed in a forthcoming book by the same authors. This book also discusses in detail important concepts such as connectivity, distance and saturation in fuzzy graphs. Thanks to the good balance between the basics of fuzzy graph theory and new findings obtained by the authors, the book offers an excellent reference guide for advanced undergraduate and graduate students in mathematics, engineering and computer science, and an inspiring read for all researchers interested in new developments in fuzzy logic and applied mathematics.

The mathematical combinatorics is a subject that applying combinatorial notion to all mathematics and all sciences for understanding the reality of things in the universe. The International J. Mathematical Combinatorics is a fully refereed international journal, sponsored by the MADIS of Chinese Academy of Sciences and published in USA quarterly, which publishes original research papers and survey articles in all aspects of mathematical combinatorics, Smarandache multi-spaces, Smarandache geometries, non-Euclidean geometry, topology and their applications to other sciences.

m?Polar Fuzzy Graphs

Fuzzy Graphs and Fuzzy Hypergraphs

Fuzzy Graph Theory

Fuzzy Magic Labelling of Neutrosophic Path and Star Graph

A Study of Regular and Irregular Neutrosophic Graphs with Real Life Applications

This book provides an examination of major problems facing the world using mathematics of uncertainty. These problems include climate change, coronavirus pandemic, human tracking, biodiversity, and other grand challenges. Mathematics of uncertainty is used in a modern more general sense than traditional mathematics. Since accurate data is impossible to obtain concerning human tracking and other global problems, mathematics of uncertainty is an ideal discipline to study these problems. The authors place several scientific studies into different mathematical settings such as nonstandard analysis and soft logic. Fuzzy differentiation is used to model the spread of diseases such as the coronavirus. The book uses fuzzy graph theory to examine the problems of human tracking and illegal immigration. The book is an excellent reference source for advanced under-graduate and graduate students in mathematics and the social sciences as well as for researchers and teachers.

Graph Labelling is the assignment of labels (integers) to the edges or vertices or to both. Fuzzy labelling of graphs is more detailed and compatible when compared with the classical models. In this paper, fuzzy magic and bimagic labelling of Neutrosophic path graph is examined. In addition to that the existence of magic value of Intuitionistic and Neutrosophic star graph is also investigated.

"Fuzzy Engineering and Operations Research" is the edited outcome of the 5th International Conference on Fuzzy Information and Engineering (ICFIE2011) held during Oct. 15-17, 2011 in Chengdu, China and by the 1st academic conference in establishment of Guangdong Province Operations Research Society (GDORSC) held on Oct. 20, 2011 in Guangzhou, China. The 5th ICFIE2011, built on the success of previous conferences, and the GDORC, first held, are major Symposiums, respectively, for scientists, engineers practitioners and Operation Research (OR) researchers presenting their updated results, developments and applications in all areas of fuzzy information and engineering and OR. It aims to strengthen relations between industry research laboratories and universities, and to create a primary symposium for world scientists in Fuzziology and OR fields. The book contains 62 papers and is divided into five main parts: "Fuzzy Optimization, Logic and Information", "The mathematical Theory of Fuzzy Systems", "Fuzzy Engineering Applications and Soft Computing Methods", "OR and Fuzziology" and "Guess and Review".

Graphical Analysis of Covering and Paired Domination in the Environment of Neutrosophic Information

Neutrosophic Graph Theory and Algorithms

Graph Theoretic Approaches for Analyzing Large-Scale Social Networks

Handbook of Research on Advances and Applications of Fuzzy Sets and Logic

Intuitionistic Fuzzy Sets