Of P Kandasamy Maths Iii Semester

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.
Algebra | Partial Fractions | The Binomial Theorem | Exponential Theorem | The Logarithmic Series Theory Of Equations | Theory Of Equations | Reciprocal Equations | Newton-Rahson Method Matrices | Fundamental Concepts | Rank Of A Matrix | Linear Equations | Characteristic Roots And Vectors Finite Differences | Finite Differences | Interpolations: Newton'S Forward, Backward Interpolation | Lagrange'S Interpolation Trigonometry | Expansions | Hyperbolic Functions Differential Calculus | Successive Derivatives | Jacobians | Polar Curves Etc..
Praise for the First Edition ". . . an excellent textbook . . . well organized and neatly written." —Mathematical Reviews ". . . amazingly interesting . . ." —Technometrics Thoroughly updated to showcase the interrelationships between probability, statistics, and stochastic processes, Probability, Statistics, and Stochastic Processes, Second Edition prepares readers to collect, analyze, and characterize data in their chosen fields. Beginning with three chapters that develop probability theory and introduce the axioms of probability, random variables, and joint distributions, the book goes on to present limit theorems and simulation. The authors combine a rigorous, calculus-based development of theory with an intuitive approach that appeals to readers' sense of reason and logic. Including more than 400 examples that help illustrate concepts and theory, the Second Edition features new material on statistical inference and a wealth of newly added topics, including: Consistency of point estimators Large sample theory Bootstrap simulation Multiple hypothesis testing Fisher's exact test and Kolmogorov-Smirnov test Martingales, renewal processes, and Brownian motion One-way analysis of variance and the general linear model Extensively class-tested to ensure an accessible presentation, Probability, Statistics, and Stochastic Processes, Second Edition is an excellent book for courses on probability and statistics at the upper-undergraduate level. The book is also an ideal resource for scientists and engineers in the fields of statistics, mathematics, industrial management, and engineering.
This book on Numerical Methods .Actually this is in continutation to other three volumes of our book. Text book on Engineering Mathematics for B.E. Course,which cater to the needs of the first and the second yesr students.The present book is to meet the requirments of the students of the fifth semester,the need of which was being felt very anxiously.In the treatment,we have tried to maintain the same style,as used in the other three volumes.All the topics have been covered comprehensively,but with clarity in lucid and easy way to grasp.There is a good number of fully solved examples with exerices to be worked out,at the end of each chapter.
Paper 1: Differential curves, Bertrand curves pair, ruled surfaces. Paper 2: (my paper) Banach space, Smarandache multispace, complex system, non-solvable equation, mathematical combinatorics. Paper 3: Zagreb index, molecular topological index, bipartite graph. Paper 4: D-conformal curvature tensor, ?-Einstein manifold. Paper 5: Hypergraph, Smarandachely linear. Paper 6: Ruled surface, parallel surface. Paper 7: Smarandachely H-rainbow connected, rainbow connected, rainbow connection number. Paper 8: Darboux vector, Smarandache curves. Paper 9: Smarandache power root mean labeling, F-root square mean labeling. Paper 10: Smarandachely k-prime labelling, k-prime labelling. Paper 11: graceful labeling, ?-labeling. Paper 12: supereulerian digraph, semicomplete digraph, locally semicomplete multipartite digraph. Paper 13: Smarandachely edge m-labeling, skolem mean labeling. Keywords: Smarandache multispace, Smarandachely linear, Smarandachely H-rainbow connected, Smarandache power root mean labeling, Smarandachely k-prime labelling, Smarandachely edge m-labeling
Rings and fields are significant algebraic structures in algebra and both of them are based on the group structure. In this paper, we attempt to extend the notion of a neutrosophic triplet group to a neutrosophic triplet ring and a neutrosophic triplet field.
“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.
The existing Third Volume of our series of textbooks on Engineering Mathematics for students of B.E.,B.Tech. & B.Sc.(Applied Science)has been now split into two volumes,to caters to the needs of the syllabus semester-wise.This volume caters to the syllabus of fourth semester.Many worked examples are added in each chapter and a large number of problems are included in the Exercises.
Social information networks concept was introduced or perceived by researchers Emile Durkheim and Ferdinand Tonnies as social groups as early as 1890’s . However Tonnies argued that social groups can exist as personal and direct social ties that either link individuals who share values and beliefs or impersonal, formal and instrumental social links but Durkheim gave a non individualistic explanation of social facts arguing that social phenomena arise when interacting individuals constitute a reality that can no longer be accounted for in terms of the properties of individual actors. Georg Simmel analyzed the network size on interaction and examined and likelihood of interaction in loosely knit networks rather than groups.
Engineering Mathematics-II
The author studies the Smarandache Fuzzy Algebra, which, like its predecessor Fuzzy Algebra, arose from the need to define structures that were more compatible with the real world where the grey areas mattered, not only black or white.In any human field, a Smarandache n-structure on a set S means a weak structure {w(0)} on S such that there exists a chain of proper subsets P(n-1) in P(n-2) in?in P(2) in P(1) in S whose corresponding structures verify the chain {w(n-1)} includes {w(n-2)} includes? includes {w(2)} includes {w(1)} includes {w(0)}, where 'includes' signifies 'strictly stronger' (i.e., structure satisfying more axioms).This book is referring to a Smarandache 2-algebraic structure (two levels only of structures in algebra) on a set S, i.e. a weak structure {w(0)} on S such that there exists a proper subset P of S, which is embedded with a stronger structure {w(1)}. Properties of Smarandache fuzzy semigroups, groupoids, loops, bigroupoids, biloops, non-

associative rings, birings, vector spaces, semirings, semivector spaces, non-associative semirings, bisemirings, near-rings, non-associative near-ring, and binear-rings are presented in the second part of this book together with examples, solved and unsolved problems, and theorems. Also, applications of Smarandache groupoids, near-rings, and semirings in automaton theory, in error correcting codes, and in the construction of S-sub-biautomaton can be found in the last chapter.

The main purpose of this book is to define and develop the notion of multi-dimensional MOD planes. Here, several interesting features enjoyed by these multi-dimensional MOD planes are studied and analyzed. Interesting problems are proposed to the reader.

For B.Sc.Physics, Chemistry, Botany, Zoology, Geology, Computer Science and major courses of Madras Universities

Papers on Non-Solvable Spaces of Linear Equation Systems, Roman Domination in Complementary Prism Graphs, On Pathos Total Semitotal and Entire Total Block Graph of a Tree, Distance Two Labeling of Generalized Cacti, Degree Splitting Graph on Graceful, Felicitous and Elegant Labeling, and other topics. Contributors: Agboola A.A.A., Adeleke E.O. Akinleye S.A., B.Chaluvaraju, V.Chaitra, P.Selvaraju, P.Balaganesan, J.Renuka, V.Balaj, Suhua Ye, Yizhi Chen, Hui Luo, and others.

Neutrosophy (1995) is a new branch of philosophy that studies triads of the form (, ,), where is an entity (i.e., element, concept, idea, theory, logical proposition, etc.), is the opposite of , while is the neutral (or indeterminate) between them, i.e., neither nor . Based on neutrosophy, the neutrosophic triplets were founded; they have a similar form: (x, neut(x), anti(x), that satisfy some axioms, for each element x in a given set. This book contains the successful invited submissions to a special issue of Symmetry, reporting on state-of-the-art and recent advancements of neutrosophic triplets, neutrosophic duplets, neutrosophic multisets, and their algebraic structures—that have been defined recently in 2016, but have gained interest from world researchers, and several papers have been published in first rank international journals.

This volume is a collection of ten papers, written by different authors and co-authors (listed in the order of the papers): F. Yuhua, A. A. Salama, F. Smarandache, S. A. Alblowi, M. Ali, M. Shabir, M. Naz, A. A. A. Agboola, S. A. Akinleye, M. Dhar, S. Broumi, P. Biswas, S. Pramanik, B. C. Giri, H. A. El-Ghareeb, A. M. Maine, V. Kandasamy, P. Sekar and J. Vidhyalakshmi. In first paper, the author proposed Expanding Newton Mechanics with Neutrosophy and Quad-stage Method-New Newton Mechanics Taking Law of Conservation of Energy as Unique Source Law. The Characteristic Function of a Neutrosophic Set is proposed in the second paper. Neutrosophic Left Almost Semigroup is studied in third paper. In fourth paper Neutrosophic Hypercompositional Structures defined by Binary Relations are introduced. Similarly in fifth paper A Note on Square Neutrosophic Fuzzy Matrices are discussed. In paper six A New Methodology for Neutrosophic Multi-Attribute Decision-Making with Unknown Weight Information is presented by the authors. Introduction to Develop Some Software Programs for dealing with Neutrosophic Sets is given in seventh paper. Paper eight is about to Soft Neutrosophic Ring and Soft Neutrosophic Field. In the next paper Rough Neutrosophic Sets are discussed. The authors introduced new type of Fuzzy Relational Equations and Neutrosophic Relational Equations-To Analyze Customer Preference to street shops in the last paper.

This volume contains 45 papers, written by the author alone or in collaboration with the following co-authors: Mumtaz Ali, Said Broumi, Sukanto Bhattacharya, Mamoni Dhar, Irfan Deli, Mincong Deng, Alexandru Gal, Valeri Kroumov, Pabitra Kumar Maji, Maikel Leyva-Vazquez, Feng Liu, Pinaki Majumdar, Munazza Naz, Karina Perez-Teruel, R?dvan Sahin, A. A. Salama, Muhammad Shabir, Rajshekhar Sunderraman, Luige Vladareanu, Magdalena Vladila, Stefan Vladutescu, Haibin Wang, Hongnian Yu, Yan-Qing Zhang.

Engineering Mathematics Vol -III (Tamil Nadu)S. Chand Publishing

This book is a collection of eleven papers, written by different authors and co-authors (listed in the order of the papers): S. Alkhazaleh, E. Marei, S. Broumi, F. Smarandache, R. Sahin, A. A. Salama, V. Kroumov, K. Perez-Taruel , M. Leyva-Vazquez, A. A. A. Agboola, B. Davvaz, W. B. V. Kandasamy, J. Ye, Q. Zhang, M. Ali, M. Shabir, M. Naz, S. Pramanik, T. K. Roy, P. Biswas and B. C. Giri. In first paper, the author proposed Mappings on Neutrosophic Soft Classes. On Neutrosophic Implications is proposed in the second paper. Hierarchical Clustering Algorithms are studied in third paper. In fourth paper Neutrosophic Crisp Sets and Neutrosophic Crisp Topological Spaces are introduced. Similarly in fifth paper, Neutrosophic Logic for Mental Model Elicitation and Analysis is discussed. In paper six, On Neutrosophic Hypergroups and Neutrosophic Hyperrings is study conducted by the authors. Neutrosophic Lattices are given in seventh paper. Paper eight is about Single Valued Neutrosophic Similarity Measures for Multiple Attribute Decision Making. In the next paper Soft Neutrosophic Bigroups and Soft Neutrosophic N-groups are discussed. In the paper, Neutrosophic Game Theoretic Approach to Indo-Pak Conflict over Jammu-Kashmir is proposed. The authors introduced Entropy Based Grey Relational Analysis Method for Multi-Attribute Decision Making under Single Valued Neutrosophic Assessments in the last paper.

In this book authors for the first time introduce the new notion of special subset vertex subgraph of subset vertex graphs introduced recently. These subset vertex graphs takes the vertex set values from the power set P(X) of any set X. The main speciality of these subset vertex graphs is that once a set of subsets from P(X) is given, the edges of the graph are fixed in a unique way, so for a given collection of subset vertices the graph is always unique.

Throughout this book, we discuss some open problems in various branches of science, including mathematics, theoretical physics, astrophysics, geophysics etc. It is of our hope that some of the problems discussed in this book will find their place either in theoretical exploration or further experiments, while some parts of these problems may be found useful for scholarly stimulation.The present book is also intended for young physics and mathematics fellows who will perhaps find the unsolved problems described here are at least worth pondering. If this book provides only a few highlights of plausible solutions, it is merely to keep the fun of readers in discovering the answers by themselves. Bon voyage!

In this book, we define several new neutrosophic algebraic structures and their related properties. The main focus of this book is to study the important class of neutrosophic rings such as neutrosophic LA-semigroup ring, neutrosophic loop ring, neutrosophic groupoid ring and so on. We also construct their generalization in each case to study these neutrosophic algebraic structures in a broader sense. The indeterminacy element “I“ gives rise to a bigger algebraic structure than the classical algebraic structures. It mainly classifies the algebraic structures in three categories such as: neutrosophic algebraic structures, strong neutrosophic algebraic structures, and classical algebraic structures respectively. This reveals the fact that a classic algebraic structure is a part of the neutrosophic algebraic structures. This opens a new way for the researcher to think in a broader way to visualize these vast neutrosophic algebraic structures.
Twelve papers on soft interval-valued neutrosophic rough sets, fuzzy neutosophic relation equations with geometric programming, rough neutrosophic multi-attribute decision-making, classes of neutrosophic crisp nearly open sets and possible application to GIS topology, neutrosophic probability in physics, and similar topics. Contributors: H. E. Khalid, K. Mondal, S. Pramanik, A. A. Salama, S. Broumi, F. Smarandache, F. Yuhua, M. Ali, M. Shabir, V. Patrascu, S. Ye, J. Fu, J. Ye, A. Hussain, and L. Vladareanu.
Likert scale is the most widely used psychometric scale for obtaining feedback. The major disadvantage of Likert scale is information distortion and information loss problem that arise due to its ordinal nature and closed format. Real-world responses are mostly inconsistent, imprecise and indeterminate depending on the customers’ emotions. To capture the responses realistically, the concept of neutrosophy (study of neutralities and indeterminacy) is used. Indeterminate Likert scale based on neutrosophy is introduced in this paper. Clustering according to customer feedback is an effectiveway of classifying customers and targeting them accordingly. Clustering algorithm for feedback obtained using indeterminate Likert scaling is proposed in this paper. While dealing real-world scenarios, indeterminate Likert scaling is better in capturing the responses accurately.
Common to CSE and IT for all Anna Universities
This volume presents a short guide to the extensive literature concerning semir ings along with a complete bibliography. The literature has been created over many years, in variety of languages, by authors representing different schools of mathematics and working in various related fields. In many instances the terminology used is not universal, which further compounds the difficulty of locating pertinent sources even in this age of the Internet and electronic dis semination of research results. So far there has been no single reference that could guide the interested scholar or student to the relevant publications. This book is an attempt to fill this gap. My interest in the theory of semirings began in the early sixties, when to gether with Bogdan W ~glorz I tried to investigate some algebraic aspects of compactifications of topological spaces, semirings of semicontinuous functions, and the general ideal theory for special semirings. (Unfortunately, local alge braists in Poland told me at that time that there was nothing interesting in investigating semiring theory because ring theory was still being developed). However, some time later we became aware of some similar investigations hav ing already been done. The theory of semirings has remained "my first love" ever since, and I have been interested in the results in this field that have been appearing in literature (even though I have not been active in this area myself).
This volume is a collection of ten papers by contributors F. Smarandache, F. Yuhua, K. Mondal, S. Pramanik, S. Broumi, J. Ye, A. A. Salama,, N. Easa, S. A. Elhafez, M. M. Lotfy, L. Kong, Y. Wu, P. Biswas, B. C. Giri, A. Mukkerjee, and S. Sarkar, focusing on a new kind of algebraic structures called (T, I, F)- Neutrosophic Structures; Expanding Uncertainty Principle to Certainty-Uncertainty Principles with Neutrosophy and Quad-stage Methods; Rough Neutrosophic Multi-Attribute Decision-Making Based on Rough Accuracy Score Function; an Extended TOPSIS Method for Multiple Attribute Decision Making based on Interval Neutrosophic Uncertain Linguistic Variable; Review of Recommender Systems Algorithms Utilized in Social Networks based e-Learning Systems & Neutrosophic System; Fault Diagnosis Method of Gasoline Engines Using the Cosine Similarity Measure of Neutrosophic Numbers; Cosine Similarity Measure Based Multi-attribute Decision-making with Trapezoidal Fuzzy Neutrosophic Numbers; Thesis-Antithesis-Neutrothesis, and Neutrosynthesis; Negating Four Color Theorem with Neutrosophy and Quadstage Method; and A new method of measuring similarity between two neutrosophic soft sets and its application in pattern recognition problems.
This book highlights the latest advances in engineering mathematics with a main focus on the mathematical models, structures, concepts, problems and computational methods and algorithms most relevant for applications in modern technologies and engineering. In particular, it features mathematical methods and models of applied analysis, probability theory, differential equations, tensor analysis and computational modelling used in applications to important problems concerning electromagnetics, antenna technologies, fluid dynamics, material and continuum physics and financial engineering. The individual chapters cover both theory and applications, and include a wealth of figures, schemes, algorithms, tables and results of data analysis and simulation. Presenting new methods and results, reviews of cutting-edge research, and open problems for future research, they equip readers to develop new mathematical methods and concepts of their own, and to further compare and analyse the methods and results discussed.The book consists of contributed chapters covering research developed as a result of a focused international seminar series on mathematics and applied mathematics and a series of three focused international research workshops on engineering mathematics organised by the Research Environment in Mathematics and Applied Mathematics at Mälardalen University from autumn 2014 to autumn 2015: the International Workshop on Engineering Mathematics for Electromagnetics and Health Technology; the International Workshop on Engineering Mathematics, Algebra, Analysis and Electromagnetics; and the 1st Swedish-Estonian International Workshop on Engineering Mathematics, Algebra, Analysis and Applications.It serves as a source of inspiration for a broad spectrum of researchers and research students in applied mathematics, as well as in the areas of applications of mathematics considered in the book.
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; Mathematical theory on gravitational fields; Mathematical theory on parallel

universes; Other applications of Smarandache multi-space and combinatorics.
In this book, the authors define several new types of soft neutrosophic algebraic structures over neutrosophic algebraic structures and we study their generalizations. These soft neutrosophic algebraic structures are basically parameterized collections of neutrosophic sub-algebraic structures of the neutrosophic algebraic structure. An important feature of this book is that the authors introduce the soft neutrosophic group ring, soft neutrosophic semigroup ring with its generalization, and soft mixed neutrosophic N-algebraic structure over neutrosophic group ring, then the neutrosophic semigroup ring and mixed neutrosophic N-algebraic structure respectively.