ICMASE 2021

II. INTERNATIONAL CONFERENCE ON MATHEMATICS

AND ITS APPLICATIONS IN SCIENCE AND ENGINEERING
(ICMASE 2021)

ABSTRACT BOOK

VNiVERSiDAD
Đ SALAMANCA
CAMPUS OF INTERNATIONAL EXCELLENCE

ANKARA
HACI BAYRAM VELİ
UNIVERSITY

Preface

This abstract booklet includes the abstracts of the papers that have been presented at II. International Conference on Mathematics and its Applications in Science and Engineering (ICMASE 2021) which is held in University of Salamanca, Spain between 1-2 July, 2021, via online because of COVID-19 pandemic. The aim of this conference is to exchange ideas, discuss developments in mathematics, develop collaborations and interact with professionals and researchers from all over the world about some of the following interesting topics: Functional Analysis, Approximation Theory, Real Analysis, Complex Analysis, Harmonic and non-Harmonic Analysis, Applied Analysis, Numerical Analysis, Geometry, Topology and Algebra, Modern Methods in Summability and Approximation, Operator Theory, Fixed Point Theory and Applications, Sequence Spaces and Matrix Transformation, Modern Methods in Summability and Approximation, Spectral Theory and Diferantial Operators, Boundary Value Problems, Ordinary and Partial Differential Equations, Discontinuous Differential Equations, Convex Analysis and its Applications, Optimization and its Application, Mathematics Education, Applications on Variable Exponent Lebesgue Spaces, Applications on Differential Equations and Partial Differential Equations, Fourier Analysis, Wavelet and Harmonic Analysis Methods in Function Spaces, Applications on Computer Engineering, Flow Dynamics. However, the talks are not restricted to these subjects.

Thanks to all committee members.

We wish everyone a fruitful conference and pleasant memories from ICMASE 2021.

Prof. Dr. Araceli QUEIRUGA-DIOS,

Assoc. Prof. Dr. Fatih YILMAZ

Chairs, ICMASE 2021

International Conference on Mathematics and Its Applications in Science and Engineering (ICMASE 2021)

01-12 July 2021, Universidad de Salamanca

Honory and Advisory Board

Prof. Dr. José Miguel MATEOS ROCO, Vice Chancellor for Research and Transfer, University of Salamanca, (Spain)

Prof. Dr. Yusuf TEKİN, Rector of Ankara Hacı Bayram Veli University, (Turkey)

Organizing Committee

Araceli QUEIRUGA-DIOS, Salamanca University, (Spain) **(Conference Chair)**

Fatih YILMAZ, Ankara Hacı Bayram Veli University, (Turkey) **(Organizing Chair)**

Deolinda RASTEIRO, Coimbra Engineering Institute-ISEC, (Portugal)

Emel KARACA, Ankara Hacı Bayram Veli University, (Turkey)

Jesús Martin-VAQUERO, Salamanca University, (Spain)

María Jesús Santos SANCHEZ, Salamaca University, (Spain)

Melek SOFYALIOĞLU, Ankara Hacı Bayram Veli University, (Turkey)

Mücahit AKBIYIK, Beykent University, (Turkey)

Mustafa ÖZKAN, Gazi University, (Turkey)

Seda Yamaç AKBIYIK, İstanbul Gelişim University, (Turkey)

Víctor Gayoso MARTINEZ, Spanish National Research Council, (Spain)

Invited Speakers

Carla M. A. PINTO, School of Engineering Polytechnic of Porto, (Portugal)

Miguel Angel Gonzalez LEON, University of Salamanca, (Spain)

Tin-Yau TAM, University of Nevada, (USA)

Scientific Committee

Agustín Martín MUNOZ, Spanish National Research Council, (Spain)

Abdullah ALAZEMI, Kuwait University, (Kuwait)

Alexander KUSHPEL, Çankaya University, (Turkey)

Arihant JAIN, Shanxi Normal University, (P. R. China)

Ascensión Hernández ENCINAS, University of Salamanca, (Spain)

Ayman BADAWI, American University of Sharjah, (UAE)

Aynur Keskin KAYMAKÇI, Selçuk University, (Turkey)

Bipan HAZARIKA, Gauhati University, (India)

Carlos Martins da FONSECA, Kuwait College of Science and Technology, (Kuwait)

Cristina R. M. CARIDADE, Instituto Superior de Engenharia de Coimbra, (Portugal)

Daniela RICHTARIKOVA, Slovak University of Technology in Bratislava, (Slovakia)

Daniela VELICHOVA, Slovak University of Technology, (Slovakia)

Dursun TAŞÇI, Gazi University, (Turkey)

Emília BIGOTTE, Instituto Superior de Engenharia de Coimbra, (Portugal)

Gheorghe MOROSANU, Babes-Bolyai University, (Romania)

Ion MIERLUS-MAZILU, Technical University of Civil Engineering Bucharest, (Romania)

Ji-Teng JIA, Xidian University, (China)

Kadir KANAT, Ankara Hacı Bayram Veli University, (Turkey)

Luis Hernández ENCINAS, Spanish National Research Council, (Spain)

Luis Hernández ÁLVAREZ, Spanish National Research Council, (Spain)

Marie DEMLOVA, Czech Technical University in Prague, (Czech Republic)

María José Cáceres GARCIA, Universidad de Salamanca, (Spain)

Michael CARR, Technological University Dublin, (Ireland)

Milica ANDJELIC, Kuwait University, (Kuwait)

Mohammad Sal MOSLEHIAN, Ferdowsi University of Mashad, (Iran)

Mustafa ÇALIŞKAN, Gazi University, (Turkey)

Nenad P. CAKIC, University of Belgrade, (Serbia)

Nursel ÇETİN, Ankara Hacı Bayram Veli University, (Turkey)

Praveen AGARWAL, Anand International College of Engineering, (India)

Sapna JAIN, Shanxi Normal University, (P. R. China)

Snezhana GOCHEVA-ILIEVA, University of Plovdiv Paisii Hilendarski, (Bulgaria)

Süha YILMAZ, Dokuz Eylül Üniversitesi, (Turkey)

Tomohiro SOGABE, Nagoya University, (Japan)

Vildan ÖZTÜRK, Ankara Hacı Bayram Veli University, (Turkey)

Zhibin DU, South China Normal University, (China)

ICMASE 2021

Neutrosophic Soft e-Open Maps, Neutrosophic Soft e-Closed Maps and Neutrosophic Soft e-Homeomorphisms in Neutrosophic Soft Topological Spaces

Revathi PALANISWAMY[1], Chitirakala KULANDAIVELU[2], Vadivel APPACHI[3]

[1]*Government Polytechnic College for Women, Madurai-11, India; Mathematics Section (FEAT), Annamalai University,*
Annamalai Nagar - 608 002, India.

[2]*Department of Mathematics, M.Kumarasamy College of Engineering, Karur - 639 113, India; Department of Mathematics,*
Annamalai University, Annamalai Nagar - 608 002, India.

[3]*PG and Research Department of Mathematics, Government Arts College (Autonomous), Karur - 639 005, India; Department of*
Mathematics, Annamalai University, Annamalai Nagar - 608 002, India.

Corresponding Author's E-mail: chitrakalalaksana@gmail.com

Abstract

In this article, we introduce the concept of NSe-open and NSe-closed mappings in neutrosophic soft topological spaces and study some of their related properties. Further the work is extended to NS homeomorphism, NSe-homeomorphism, NSe-C homeomorphism and $NSeT_{\frac{1}{2}}$-space in neutrosophic soft topological spaces and establish some of their related attributes.

Keywords NSe-open map $\cdot$ NSe-closed map $\cdot$ NSe-homeomorphism $\cdot$ $NSeT_{\frac{1}{2}}$-space $\cdot$ NSe-C homeomorphism

References

[1] Ahu Acikgoz and Ferhat Esenbel, Neutrosophic soft δ-topology and neutrosophic soft compactness, AIP Conference Proceedings, 2183(030002): 2019.

[2] K. Atanassov and S. Stoeva, Intuitionistic fuzzy sets, in : polish syrup. on interval and fuzzy mathematics, Poznan, 23-26, 1983.

[3] K. Atanassov, Intuitionistic fuzzy sets, Fuzzy Sets and Systems, 20: 87-96, 1986.

[4] K. Atanassov, Review and new results on intuitionistic fuzzy sets, Preprint IM-MFAIS, Sofia, 1-88, 1988.

[5] T. Bera and N. K. Mahapatra, Introduction to neutrosophic soft topological space, Opsearch, 54: 841-867, 2017.

[6] V. Chandrasekar, D. Sobana and A. Vadivel, On Fuzzy e-open Sets, fuzzy e-continuity and fuzzy e-compactness in intuitionistic fuzzy topological spaces, Sahand Communications in Mathematical Analysis (SCMA), 12(1): 131-153, 2018.

[7] C. L. Chang, Fuzzy topological space, J. Math. Anal. Appl., 24: 182-190, 1968.

[8] Cigdem Gunduz Aras and Sadi Bayramov, Neutrosophic Soft Continuity in Neutrosophic Soft Topological Spaces, Filomat, 34(10): 3495-3506, 2020.

[9] D. Coker, An introduction to intuitionistic topological spaces, Fuzzy sets and systems, 88: 81-89, 1997.

[10] I. Deli and S. Broumi, Neutrosophic soft relations and some properties, Ann Fuzzy Math Inform., 9: 169-182, 2015.

[11] Erdal Ekici, On e-open sets, $\mathcal{DP}^{\star}$-sets and $\mathcal{DP}\epsilon^{\star}$-sets and decomposition of continuity, The Arabian Journal for Science and Engineering, 33(2A): 269-282, 2008.

[12] P. Evanzalin Ebenanjar, H. Jude Immaculate and K. Sivaranjani, Introduction to neutrosophic soft topological spatial region, Neutrosophic Sets and Systems, 31: 297-304, 2020.

[13] P. K. Maji, Neutrosophic soft set, Ann Fuzzy Math Inform., 5: 157-168, 2013.

[14] D. Molodtsov, Soft set theory-first results, Comput Math Appl., 37: 19-31, 199.

[15] P. Revathi, K. Chitirakala and A. Vadivel, Neutrosophic Soft e-open sets in Neutrosophic Soft Topological Spaces, Submitted.

[16] P. Revathi, K. Chitirakala and A. Vadivel, Neutrosophic Soft e-Continuous Maps and Neutrosophic Soft e-Irresolute Maps, Submitted.

[17] A. A. Salama and S. A. Alblowi, Neutrosophic Set and Neutrosophic Topological Spaces, IOSR Journal of Mathematics, 3(4): 31-35, 2012.

[18] V. Seenivasan and K. Kamala, Fuzzy e-continuity and fuzzy e-open sets, Annals of Fuzzy Mathematics and Informatics, 8: 141-148, 2014.

[19] M. Shabir and M.Naz, On soft topological spaces, Comput Math Appl., 61: 1786-1799, 2011.

[20] F. Smarandache, Neutrosophic set: A generalization of the intuitionistic fuzzy sets, Inter. J. Pure Appl. Math., 24: 287-297, 2005.

[21] Supriti Saha, Fuzzy δ-continuous mappings, Journal of Mathematical Analysis and Applications, 126: 130-142, 1987.

[22] A. Vadivel, C. John Sundar and P. Thangaraja, Neutrosophic e-open sets in a neutrosophic topological spaces, Submitted.

[23] A. Vadivel, M. Seenivasan and C. John Sundar, An introduction to δ-open sets in a neutrosophic topological spaces, Journal of Physics: Conference series, 1724(012011): 2021.

[24] A.Vadivel, P. Thangaraja and C. John Sundar, Neutrosophic e-Continuous Maps and Neutrosophic e-Irresolute Maps, Turkish Journal of Computer and Mathematics Education, 12(1S): 369-375, 2021.

[25] A.Vadivel, P. Thangaraja and C. John Sundar, Neutrosophic e-Open Maps, Neutrosophic e-Closed Maps and Neutrosophic e-Homeomorphisms in Neutrosophic Topological Spaces, Submitted.

[26] L. A. Zadeh, Fuzzy sets, Information and control, 8: 338-353, 1965.