

**ON NANO SOFT ${}^s(\mathcal{S})\beta\alpha$ - REGULAR SPACES
AND NORMAL SPACES**

S. P. R. Priyalatha and S. Vanitha*

Department of Mathematics,
Kongunadu Arts and Science College,
Coimbatore - 641029, Tamil Nadu, INDIA

E-mail : spr.priyalatha@gmail.com

*Department of Mathematics,
A. E. T. College,
Salem - 636108, Tamil Nadu, INDIA

E-mail : svanithamaths@gmail.com

(Received: Apr. 28, 2023 Accepted: Apr. 08, 2024 Published: Apr. 30, 2024)

Abstract: In this paper, we introduce the idea of Nano Soft ${}^s(\mathcal{S})\beta\alpha$ - Regular Spaces (RS) and Normal Spaces (NS). Further we define Nano Soft ${}^s(\mathcal{S})\alpha$ - Regular and Normal Spaces, Nano Soft ${}^s(\mathcal{S})\beta$ - Regular and Normal Spaces, Nano Soft ${}^s(\mathcal{S})$ Semi- Regular and Normal Spaces, Nano Soft ${}^s(\mathcal{S})$ Pre- Regular and Normal Spaces. Also their features and characterization are explored with an example.

Keywords and Phrases: Nano Soft ${}^s(\mathcal{S})\alpha$ - Regular Spaces and Normal Spaces, Nano Soft ${}^s(\mathcal{S})\beta$ - Regular Spaces and Normal Spaces, Nano Soft ${}^s(\mathcal{S})\beta\alpha$ - Regular Spaces and Normal Spaces, Nano Soft ${}^s(\mathcal{S})\alpha\beta$ - Regular Spaces and Normal Spaces.

2020 Mathematics Subject Classification: 54A10, 54C50, 54G20.

1. Introduction

The soft set theory was developed by Molodstov [18] in 1999 to solve the problem in a mathematical model to the uncertainty. M. Shabir and M. Naz [21] introduced the soft topological spaces (TS). The nano topology was produced by Lellis Thivagar [11] in 2013. Jankovic and Hamlett [9] was developed the ideal