

**GENERALIZED FIXED POINT RESULT OF BANACH AND  
KANNAN TYPE IN  $S$ -MENGER SPACES**

**Krishna Kanta Sarkar, Krishnapada Das\* and Abhijit Pramanik\*\***

The Park Institution, Shambazar,  
Kolkata - 700004, West Bengal, INDIA

E-mail : krishnakanta1505@gmail.com

\*Department of Mathematics,  
Sarojini Naidu College for Women,  
Dum Dum, Kolkata - 700028, West Bengal, INDIA

E-mail : kestapm@yahoo.co.in

\*\*Department of Basic Science, MCKVIE,  
Liluah, Howrah - 711204, West Bengal, INDIA

E-mail : abhijit\_pramanik@yahoo.co.in

**(Received: Dec. 17, 2021 Accepted: Apr. 27, 2023 Published: Apr. 30, 2023)**

**Abstract:**  $S$ -metric space is a relatively new concept in the literature and currently there is much attention being given to the generalization of  $S$ -metric spaces and fixed point theory in these spaces. Recently, the concept of  $S$ -Menger spaces was introduced in the literature as a generalization of both  $S$ -metric spaces and Menger spaces. Combinations of Banach and Kannan type contractions are very much important to find fixed point results and there are very few works on  $S$ -metric spaces that includes both of these type contractions. In this paper, we present a fixed point result in  $S$ -Menger spaces that includes both Banach type contractions and Kannan type contractions. We have also deduced some corollaries from our result and provided examples to validate our work.

**Keywords and Phrases:**  $S$ -metric space, Menger space,  $S$ -Menger space, Cauchy sequence, fixed point,  $t$ -norm.