

**STRONG COUPLED FIXED POINTS OF α -ADMISSIBLE REICH
TYPE COUPLED MAPPINGS IN S -METRIC SPACES**

G. V. R. Babu, P. Durga Sailaja* and G. Srichandana

Department of Mathematics,
Andhra University, Visakhapatnam - 530003, Andhra Pradesh, INDIA

E-mail : gvr_babu@hotmail.com, sri.chandan3@gmail.com

*Department of Mathematics,
Lendi Institute of Engineering and Technology,
Vizianagaram - 535005, Andhra Pradesh, INDIA

E-mail : sailajadurga@yahoo.com

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Abstract: In this paper, we introduce α -admissible Reich type cyclic coupled mapping and α -admissible Reich type coupled mapping in S -metric spaces and prove the existence and uniqueness of strong coupled fixed points of such mappings. We give illustrative examples to check the validity of our results.

Keywords and Phrases: S -metric space, cyclic mapping, coupled fixed point, strong coupled fixed point, α -admissible Reich type cyclic coupled mapping, α -admissible Reich type coupled mapping.

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1. Introduction

In 1972, Reich [34] proved that any Reich type contraction on a complete metric space X has a unique fixed point. After this, more works on Reich type contractions appeared ([1], [7], [19], [25], [33]). On the other hand, in 1987, Geo and Lakshmikantham [17] introduced coupled fixed points of nonlinear operators. Later, Bhaskar and Lakshmikantham [16] developed coupled fixed point theory for mixed monotone operators in partially ordered metric spaces. For more works on coupled