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**FIXED POINT THEOREMS FOR EXTENDED
GENERALIZED $\alpha - \psi$ -GERAGHTY CONTRACTION
TYPE MAPS IN METRIC SPACE**

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Abstract: In this paper, we introduce the notion of extended generalized $\alpha - \psi$ -Geraghty contraction type maps in the context of metric space and establish some fixed point theorems for such maps. Our results extend the fixed point results of Popescu [Fixed Point Theory and Applications 2014, 2014:190] in complete metric space. An example is also given to illustrate our result.

Keywords and Phrases: Metric space, fixed point, triangular α -orbital admissible mapping, generalized α -Geraghty contraction type map, extended generalized $\alpha - \psi$ -Geraghty contraction type map.

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1. Introduction

The Banach contraction principle is one of the most fundamental results in fixed point theory. Besides being the foundation of the metric branch of fixed point theory, it is one of the most widely used fixed point theorems in all analysis. Due to its usefulness in nonlinear analysis and applications in many disciplines such as Chemistry, Physics, Biology, Computer Science, Economics, Game Theory and many branches of Mathematics, several authors have improved, generalized and extended this basic result of Banach by defining new contractive conditions and