SOME COMMON FIXED POINT THEOREMS FOR OWC MAPPINGS WITH APPLICATIONS

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Abstract. Starting from the setting of fuzzy metric spaces, we give some new common fixed point theorems for a pair of occasionally weakly compatible (owc) self-mappings satisfying a mixed contractive condition. In proving our results, we do not need to use the triangular inequality. Also we obtain analogous results for two pairs of owc self-mappings by assuming symmetry only on the set of points of coincidence. These results unify, extend and complement some results existing in the literature. Finally, we give some applications of our results.

Keywords. Common fixed points, functional equations, fuzzy metric spaces, occasionally weakly compatible mappings, product space.

AMS (MOS) subject classification: 47H10, 54H25.

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