

Erratum

Erratum to “Common Fixed Point Theorems in Modified Intuitionistic Fuzzy Metric Spaces”

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On critical examination of the results given in our paper entitled “Common fixed point theorems in modified intuitionistic fuzzy metric spaces,” we notice one crucial error. We need to carry out the following correction.

Example 22 given in the paper is wrong as follows.

None of the maps in A , B , S , and T is continuous. Therefore, all conditions of Theorem 20 are not satisfied.

Hence, Example 22 in the paper is replaced by the below example.

Example 22. Let $X = [0, \infty)$ and for each $t > 0$, define

$$\zeta_{M,N}(x, y, t) = \left(\frac{t}{t + |x - y|}, \frac{|x - y|}{t + |x - y|} \right) \quad \forall x, y \in X. \quad (22)$$

Then $(X, \zeta_{M,N}, \mathcal{F})$ is a complete modified intuitionistic fuzzy metric space. Let A , B , S , and T be self-maps on X defined as: $Ax = Bx = 3x/4$ and $Sx = Tx = 2x$ for all $x \in X$. Clearly,

- (i) the pairs $\{A, S\}$ and $\{B, T\}$ are continuous self-mappings on X ;
- (ii) $A(X) \subseteq T(X)$, $B(X) \subseteq S(X)$;
- (iii) $\{A, S\}$ and $\{B, T\}$ are R -weakly commuting pairs as both pairs commute at coincidence points;
- (iv) $\{A, S\}$ and $\{B, T\}$ satisfy inequality (5) for all $x, y \in X$, where $k \in (0, 1)$ and $\alpha = 1$.

Hence, all conditions of Theorem 20 are satisfied and $x = 0$ is a unique common fixed point of A , B , S , and T .