CHAPTER 4

Conclusion

In this chapter, we conclude all main results obtained in this thesis. We divide our main results into 2 sections

4.1 Generalized α-ψ Geraghty contraction type

We define continuous function on the setting of generalized space. Then we prove that the mapping T satisfies the generalized α-ψ Geraghty contraction type will have a fixed point in the RS-generalized space. Moreover, we can find the conditions for the uniqueness of the fixed point. Some corollaries can be obtained from the theorem.

4.2 JKS contraction

We first extend the definition of the old JKS contraction by including infinity value into its auxiliary function domain and range. Then we prove that the mapping T satisfies the modified JKS contraction condition will have a convergent Picard sequence over some appropriate point in the RS-generalized space. If the distance between that limit point at the limit point sent by T is finite, then the limit point is a fixed point of T. Moreover, we can prove that this fixed point will be unique if other fixed points of T difference in some finite value. Finally, we achieve some corollaries and an example.