

## A Three-Step Iterative Process for Common Fixed Points of Three Contractive-Like Operators

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**Abstract :** The concept of quasi-contractive type operators was given by Berinde and extended by Imoru and Olatinwo. They named this new type as contractive-like operators. On the other hand, Xu and Noo introduced a three-step-one-mappings iterative process which can be seen as a generalization of Mann and Ishikawa iterative processes. Approximating common fixed points has its own importance as it has a direct link with minimization problem. Motivated by this, in this paper, we first extend the iterative process of Xu and Noor to the case of three-step-three-mappings and then prove a strong convergence result using contractive-like operators for this iterative process. In general, this generalizes corresponding results using Mann, Ishikawa and Xu-Noor iterative processes with quasi-contractive type operators. It is to be pointed out that our results can also be proved with iterative process involving error terms.

**Keywords :** contractive-like operator, iterative process, common fixed point, strong convergence

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