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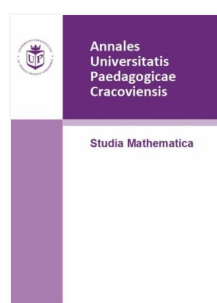
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Existence results of ψ -Hilfer integro-differential equations with fractional order in Banach space

[Mohammed A. Almalahi](#) and [Satish K. Panchal](#) | Dec 31, 2020



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In this article we present the existence and uniqueness results for fractional integro-differential equations with ψ -Hilfer fractional derivative. The reasoning is mainly based upon different types of classical fixed point theory such as the Mönch fixed point theorem and the Banach fixed point theorem. Furthermore, we discuss E_α -Ulam-Hyers stability of the presented problem. Also, we use the generalized Gronwall inequality with singularity to establish continuous dependence and uniqueness of the δ -approximate solution.

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