**ABSTRACT**

In this paper, we establish the results on existence and uniqueness of mild solution of impulsive neutral stochastic integrodifferential equations driven by a fractional Brownian motion. Further, by using an impulsive integral inequality, some novel sufficient conditions are derived to ensure the exponential stability of mild solution in the mean square moment. The results are obtained by utilizing the fractional power of operators and the semigroup theory. Finally, an example is presented to demonstrate the effectiveness of the proposed result.