Abstract: In this paper we apply Rothe's Fixed Point Theorem to prove the interior approximate controllability of the following semilinear impulsive Heat Equation

$$\begin{cases} z_t = \Delta z + 1_\omega u(t,x) + f(t,z,u(t,x)), & \text{in} \quad (0,\tau] \times \Omega, t \neq t_k \\ z = 0, & \text{on} \quad (0,\tau) \times \partial\Omega, \\ z(0,x) = z_0(x), & x \in \Omega, \\ z(t_k^+,x) = z(t_k^-,x) + I_k(t_k, z(t_k,x), u(t_k,x)), & x \in \Omega, \end{cases}$$

where $k = 1, 2, \ldots, p$, Ω is a bounded domain in $\mathbb{R}^N (N \geq 1)$, $z_0 \in L_2(\Omega)$, ω is an open nonempty subset of Ω, 1_ω denotes the characteristic function of the set ω,the distributed control u belongs to $C([0,\tau]; L_2(\Omega))$ and $f, I_k \in C([0,\tau] \times \mathbb{R} \times \mathbb{R}; \mathbb{R})$, $k = 1, 2, 3, \ldots, p$, such that

$$|f(t,z,u)| \leq a_0|z|^{\alpha_0} + b_0|u|^{\beta_0} + c_0, \quad u \in \mathbb{R}, z \in \mathbb{R}.$$

$$|I_k(t,z,u)| \leq a_k|z|^{\alpha_k} + b_k|u|^{\beta_k} + c_k, \quad k = 1, 2, 3, \ldots, p, \quad u \in \mathbb{R}, z \in \mathbb{R}.$$

with $\frac{1}{2} \leq \alpha_k < 1$, $\frac{1}{2} \leq \beta_k < 1$, $k = 0, 1, 2, 3, \ldots, p$. Under this condition we prove the following statement: For all open nonempty subsets ω of Ω the system is approximately controllable on $[0,\tau]$. Moreover, we could exhibit a sequence of controls steering the nonlinear system from an initial state z_0 to an ϵ neighborhood of the final state z_1 at time $\tau > 0$.