1138-39-99 **Lingju Kong*** (lingju-kong@utc.edu). *Solutions for a discrete fourth order boundary value problem.*

Applying variational method and critical point theory, several sufficient conditions are obtained for the existence of one and multiple solutions of the discrete fourth order boundary value problem

$$\begin{cases} \Delta^4 u(t-2) - \alpha\Delta^2 u(t-1) + \beta u(t) = f(t, u(t)), \quad t \in [1, N]_{\mathbb{Z}}, \\ u(-1) = \Delta u(-1) = 0, \quad u(N+1) = \Delta^2 u(N) = 0, \end{cases}$$

where $N \geq 1$ is an integer, $\alpha, \beta \geq 0$, and $f : [1, N]_{\mathbb{Z}} \times \mathbb{R} \to \mathbb{R}$ is continuous in the second argument. Examples are included to illustrate the results. (Received February 03, 2018)