Let $G$ be a graph. The distance between two vertices $u$ and $v$ is denoted by $d(u, v)$. Let $j, k$ be positive integers with $j \leq k$. An $L(j, k)$-labeling of $G$ is a mapping $f$ from $V(G)$ to the non-negative integers such that $|f(u) - f(v)| \geq j$ if $d(u, v) = 1$, and $|f(u) - f(v)| \geq k$ if $d(u, v) = 2$. The span of $f$ is $\max\{|f(u) - f(v)| : u, v \in V(G)\}$. The $L(j, k)$-labeling number of $G$, denoted by $\lambda_{j,k}(G)$, is the minimum span of all $L(j, k)$-labelings admitted by $G$. The $k$-power of an undirected graph $G$ is a graph with the same vertex set as $G$, in which two vertices are adjacent if their distance in $G$ is at most $k$. The $L(j, k)$-labeling number of square paths has recently been completely determined. In this talk, we show the exact values of $\lambda_{j,k}(C^2_n)$ for some square cycles $C^2_n$ and present upper bounds for all other square cycles. We conjecture that these bounds are the exact value for $\lambda_{j,k}$. (Received September 26, 2017)