A (p, q) connected graph is edge-odd graceful graph if there exists an injective map \( f: E(G) \rightarrow \{1, 3, \ldots, 2q-1\} \) so that induced map \( f+: V(G) \rightarrow \{0, 1, 2, 3, \ldots, (2k-1)\} \) defined by \( f+(x) \equiv f(x, y) \pmod{2k} \), where the vertex \( x \) is incident with other vertex \( y \) and \( k = \max\{p, q\} \) makes all the edges distinct and odd. In this article, the Edge-odd gracefulness of the cartesian product of \( C_3 \) and \( C_n \) is obtained.

**Reference**

- A.Solairaju and K.Chitra  
  "Edge-odd graceful labeling of some graphs"  
  "Electronics Notes in Discrete Mathematics Volume 33,April 2009, Pages 15 - 20"
- A.Solairaju, A.Sasikala, C.Vimala  
  "Edge-odd Gracefulness of a spanning tree of Cartesian"
   - A. Solairaju, A. Sasikala, C. Vimala Edge-odd Gracefulness of strong product of $P_2$ and $C_n$, communicated to serials publications, New Dehli.
   - A. Solairaju, A. Sasikala, C. Vimala, Edge-odd Gracefulness of strong product of $P_3$ and $C_n$, Communicated to serials publications, New Dehli.

**Index Terms**

Computer Science  
Applied Mathematics

**Key words**

Graceful Graphs  
Edge-odd graceful labeling

Edge-odd Graceful Graph