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ON SOME DISTANCE-BASED TOPOLOGICAL INDICES OF  
TOTAL GRAPH OF  $\mathbb{Z}_n$

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ABSTRACT

In recent years, many research articles have been published on graphs over rings, especially commutative rings. Anderson and Badawi [1] introduced the total graph of a commutative ring. Topological indices of graphs are graph invariants that are mostly related to connectivity, degree and distance. Several topological indices of total graph of  $\mathbb{Z}_n$  are computed in [2]. In this study, we consider the total graph of  $\mathbb{Z}_n$  for  $n$  is even and  $n \neq 2^\alpha$ . We compute the Schultz, Gutman, eccentric connectivity and edge eccentric connectivity indices of the total graph of  $\mathbb{Z}_n$ .

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