

Abstract

The plan of this study is to introduce the polygonal cylinder $C_{m,n}$ by constructing it using cartesian product of paths P_m and P_n and using topological identification of vertices and edges of two opposite sides of $P_m \times P_n$. Secondly, we plan to give the Hosoya polynomial, which is a distance-based graph invariant, of $C_{m,n}$ and its line graph. Finally, we plan to give the Schultz polynomial, which is both degree based and distance based, of $C_{m,n}$.