**Paper No: PU-SOE-MAT- 15**

**Total Coloring of the Prismatic Graphs Dicrete Mathematics, Algorithms & Applications**

**Mohan S** and K Somasundaram

Department of Mathematics, School of Engineering, Presidency University, Bangalore-560 064, INDIA

**Abstract**

A total coloring of a graph is an assignment of colors to all the elements of the graph such that no two adjacent or incident elements receive the same color. A graph GG is prismatic, if for every triangle TT, every vertex not in TT has exactly one neighbor in TT. In this paper, we prove the total coloring conjecture (TCC) for prismatic graphs and the tight bound of the TCC for some classes of prismatic graphs.

**Keywords:**

[Total coloring](https://www.worldscientific.com/keyword/Total%2BColoring), [claw-free graphs](https://www.worldscientific.com/keyword/Claw-free%2BGraphs), [non-orientable prismatic graphs](https://www.worldscientific.com/keyword/Non-orientable%2BPrismatic%2BGraphs)

**Publication Details:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Journal Name** | **Vol.** | **Month & Year**  | **Page No.** | **Publisher** | **Scimago Ranking** |
| Discrete Mathematics, Algorithms & Applications | 12(3) | 2020  | NA | World Scientific  | Q3 |