

# Prime Labeling of Möbius Ladder Graphs $M_n$

**Khandoker Mohammed Mominul Haque<sup>1</sup>,**

**Umme Nasree Khanam<sup>2</sup>,**

**Khandoker Mohammed Faiyaz Shahriar<sup>3</sup>**

<sup>1</sup> Shahjalal University of Science and Technology

<sup>2</sup> Jayntapur Tayob Ali Technical College

<sup>3</sup> North South University

momin66@gmail.com, ummenasreen@gmail.com, faiyazshahriar10@gmail.com

## Abstract

A graph  $G$  is said to have a prime labeling if its vertices can be labeled with distinct integers from  $1, 2, \dots, |V|$  such that for every edge  $xy$  in  $G$ , the labels assigned to  $x$  and  $y$  are relatively prime or coprime. A graph is called prime if it has a prime labeling. In this paper, we demonstrate the prime labeling of the Möbius Ladder  $M_n$ .