

**IDENTIFICATION OF DUPLICATING OF VERTEX EDGE  
NEIGHBORHOOD PRIME GRAPHS**

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**(Received: Mar. 15, 2022 Accepted: Apr. 08, 2022 Published: Jun. 30, 2022)**

**Special Issue**

**Proceedings of International Virtual Conference on  
“Applied Mathematics and Computation– AMC- 2022”**

**Abstract:** In this paper, We deal with duplicating of graphs are vertex edge neighborhood prime graph. The concept of vertex edge neighborhood prime labeling introduced in [3].

**Keywords and Phrases:** Prime graphs, vertex edge neighborhood prime graphs, duplicating of graphs.

**2020 Mathematics Subject Classification:** 05C78.

### **1. Introduction**

Consider graphs are connected, undirected, finite and simple graphs. For standard terminology and notations, we refer [1]. See the dynamic graph labeling survey [2] by Gallian is regularly updated. The following definitions are taken from [5] “prime graph, neighborhood prime graph, total neighborhood prime graph. Motivated by neighborhood prime graph and total neighborhood prime graph, Pandya and Shrimali [3] defined the concept of vertex edge neighborhood prime labeling.

Vertex edge neighborhood prime labeling is a function  $f : V(G) \cup E(G) \rightarrow \{1, 2, 3, \dots, p + q\}$  with the property that if degree of vertex is exactly one, then that neighborhood vertex and its incident edges are relatively prime and if the degree