Scientific Journal of Impact Factor (SJIF): 5.71

e-ISSN (O): 2348-4470
p-ISSN (P): 2348-6406

International Journal of Advance Engineering and Research Development

Volume 5, Issue 05, May -2018

REVIEW OF THE RESEARCH PAPERS RELATED TO "PRIME CORDIAL AND 3-EQUITABLE PRIME CORDIAL LABELING OF GRAPHS"

Jasmin P Jena

Ph.D. Scholar, School of Engineering

RK. University Rajkot - 360020, Gujarat – INDIA,

Review of the Research Paper entitled "Prime cordial and 3-equitable prime cordial Labelings of Graphs"

- **Concise Summary:**

Authors: S. Babitha , J. Baskar Babujee

Published in: International Journal of Mathematical and Computational Sciences ,Vol-7, No-5, 2013.
ISSN 0974-3189

In this paper, the authors have introduced characterization result on prime cordial labeling which plays a significant role in combinatorial problems. According to the authors, as labeling of graphs is a strong communication between Number Theory and Structure of Graphs, they studied and introduced prime cordial labeling for certain classes of trees and also exhibit some characterization results and new constructions of prime cordial graph..

- **Evaluation of Paper:**

1. Positive Sides:

(i) The whole paper has been written in easy language with mathematical notations, which motivates the reader /researcher to go for the further extended research in the relevant concept.

(ii) The authors were able to prove prime cordial labeling for certain classes of trees.

(iii) They also exhibit new constructions of prime cordial graph.

(iv) Sufficient number of results are proved for prime cordial labeling.

2. Negative Sides:

(i) Necessary diagrams drawn are not adequate to understand the defined labeling pattern in the theorems.

(ii) The discussion of sufficient condition was not presented as a form of illustration , only necessary part of this theorem is discussed and investigated.

3. Unclear Points:

No such unclear points are found in this paper.

- **Further Comments:**

The results investigated here lead the researchers to find several new classes of graphs and families of graphs.

❖ **Review of the Research Paper entitled "3-Equitable Prime Cordial Labeling of Some Graphs''**

- **Concise Summary:**

Authors: Dr. Sweta Srivastav , Dr. Sangeeta Gupta

Published in: International Journal of Engineering Research, Volume No.4, Issue No.3, pp : 115 – 117

ISSN:2319-6890)(online), 2347-5013(print)

In this paper, the authors have derived and investigated some new 3-equitable graph.

- **Evaluation of Paper:**

1. **Positive Sides:**

(i) Authors have explained the proof is quite comfortable for readers.

(ii) Authors have proved some graph families in the context of different graph labeling problems is an open research area.

(iii) Authors have also added several new families of 3-equitable prime cordial graphs, which helps the researchers to invent new results related to 3-equitable prime cordial graphs.

2. **Negative Sides:**

(i) In this research paper authors have not given proof for n □□ 2(mod 6) in theorem 2.1.

(ii) Also authors have not given proof for n □□ 4(mod 6) in theorem 2.3

3. **Unclear Points:**

The authors have not given proof for unsatisfying cases.

- **Further Comments:**

The authors in this paper should prove give the general arguments where the conditions of prime cordial labeling are not satisfied. The authors can also explain unsatisfying cases through figures.

❖ **Review of the Research Paper entitled "Some Results on Prime Cordial Labeling Of Graphs"**

Concise Summary:

Authors: **S. Meena, A. Archunan**

Published in: International Journal Of Mathematics And Computer Research, Vol. 2(10), 2014, no. 691-701, ISSN :2320-7167.

In this paper, the authors have given some generalized results about some **on Prime Cordial Labeling**.

- **Evaluation of Paper:**

1. Positive Sides: .

(i) The authors have observed and proved that X-tree and Y-tree are prime cordial.

(ii) The authors have also proved that $K_{1,n}$ is prime cordial if n is even and $n \neq 0 \pmod 4$, $n \geq 4$.

2. Negative Sides:

(i) In this paper, the authors have investigated only the cases which is satisfying prime cordial labeling.

(ii) Authors have not given prove for $n \neq 0 \pmod 4$ in theorem 2.1 and X-tree is prime cordial for all $n > 9$ except $n = 3p$ in Theorem 2.3.

3. Unclear Points:

The authors have not given a regular proof of Theorem 2.1 and Theorem 2.3.

- **Further Comments:**

(i) The authors should have put or discussed application part.

(2)The authors should give proof for special cases.

(3) Further scope of study from this paper should have been discussed.

