

## LICT JUMP GRAPH OF A GRAPH

<sup>1</sup>Venkanagouda M Goudar, <sup>2</sup>Nagendrappa E, and <sup>3</sup>M H Muddebihal

Sri Gauthama Research Centre, Department of Mathematics,

<sup>1</sup>Sri Siddhartha Institute of Technology, Tumkur-572 105, Karnataka, INDIA. vmgouda@gmail.com

<sup>2</sup>Govt.first grade college Gouribidanur

<sup>3</sup>Department of mathematics, Gulbarga University, Gulbarga,

### ABSTRACT

Let  $G$  be a nonempty graph. The jump graph  $J(G)$  of  $G$  is the graph whose vertices are edges of  $G$ , and where two vertices of  $J(G)$  are adjacent if and only if they are not adjacent in  $G$ . Equivalently the jump graph  $J(G)$  of  $G$  is the compliment of the line graph  $L(G)$  of  $G$ . In this paper we define a new type of graph called lict jump graph of a graph  $G$ . We characterize the planarity and outer planarity of lict jump graph of a graph and whether it is eulerian.

**AMS (2010):** 05C05, 05C12.

**KEY WORDS AND PHRASES:** Jump Graph, LICT Graph.