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**Germina Augusthy Kizhakekunnel\*** (srgerminaka@gmail.com), Department of Mathematics, Central University of Kerala, Kasaragod, Kerala, India, Kerala, 671316, India. *The algebraic approach on the measurement of structural balance in a signed network-A Creative Review.*

Signed graphs have been used to model that affect ties for social networks. Balance theory has been used as a theory for the organization and form of these relations. Based on a graph theoretical formalization of this theory, for signed graphs, theory have been developed stating the balanced structures of the networks. The degree of balance of a graph, then, provides a sociometric index in constructing theories of group structure and behavior. There are several ways of defining the degree of balance, and the group has several ways of altering this index. The theory of structural balance is an essential tool to understand the impact of local interactions on the global structure of signed networks. One such network analysis methods is the subfield of algebraic graph theory, using algebraic methods. This paper review on the exploration of the mathematical properties of signed graphs to measure the structural balance in a signed network based on algebraic approach. (Received June 24, 2019)