This paper proposes a layerwise graph theory based intrusion detection system (LGTBIDS)

algorithm is designed to detect the attacked node. In this paper, the nodes with the signal strength beyond the range of upper and lower thresholds are detected as the nodes under attack.

Strength:

1. The LGTBIDS algorithm is a novel approach which is formulated with layer-wise scanning of vulnerable nodes.
2. In table III, they discussed the architecture of graph layout and other simulation parameters which seemed to me good after seeing that everyone will understand their architecture.

Weakness:

1. In this paper, the authors cite that they use the graph theory for reducing complexity. But I do not find how graph theory is used for reducing complexity. My hope is that this kind of work (Pseudo Code for LGTBIDS) can be easily done by matrix operation. I am not sure why the authors emphasize about graph theory.
2. Lots of mathematical equations are cited in the paper. If there is a small demonstration for the whole system using the mathematical equation, it will be great. But the equations are sometimes confusing as lots of stuff there.
3. The author uses the minimum capacity of Edge matrix for finding vulnerable nodes but what about maximum capacity that is not discussed here. I am a little bit confused about that.
4. They have stated the signal attenuation equation (𝑃𝑒) = exp(-𝛾𝑤). It is not mentioned in the paper how they select the parameters of the equation.
5. Experimental data is not cleared.