- The proposed approach for network attack detection involves the application of DCNN with HMACO and LDA for feature extraction. The architecture of the DCNN consists of an input layer, convolution layer, pooling layer, fully connected layer, and output layer. The convolution layer extracts features from the dataset, which are then passed to the lower layer for further processing. An activation function is applied at this stage. The pooling layer performs sub-sampling to reduce the data obtained from the convolution layer. Nodes in the completely connected layer are connected to each and every node that existed in the layer below them. The softmax function is utilized on the output layer in order to identify malicious network activity.
- In this study, the detection of attacks is enhanced by utilizing the bagging operation with Deep CNN. An ensemble-based classifier is employed, where the outputs from the convolution and pooling layers are inputs to the bagging concept. The detection of attacks is based on the maximum voting of the ensemble classifier.
- The paper is well written and organized.
- The following Concerns should be taken into consideration:

Concern 1: The abstract provides a clear overview of the proposed approach, describing the different layers and their functions in the DCNN architecture. This information helps in understanding the technical aspects of the approach. But, one notable limitation of the provided abstract is its deficiency of precise particulars about the vulnerabilities or weaknesses inherent in the Cyber-Physical Systems (CPS) under examination. Although the abstract acknowledges the presence of attacks and insecure networks, it lacks explicit details regarding the specific nature of these attacks or vulnerabilities the proposed framework intends to identify and address. This lack of detail makes it difficult to assess the effectiveness and relevance of the proposed solution.

I suggest rewriting the abstract and enhancing it.

Concern 2: The visual representation lacks clarity and fails to cater to individuals with color blindness. Especially Fig 1, 3,4, 5, 6, and 7.

Concern 3: The integration of HMACO and LDA for feature extraction is briefly mentioned, but more details on how these techniques are utilized and their benefits in network attack detection would be helpful. Providing insights into the specific advantages and contributions of HMACO and LDA would strengthen the proposal.

Concern 4: It would be beneficial to include information about the dataset used for evaluation, the performance metrics employed, and any comparisons with existing methods. This would allow for a better assessment of the effectiveness and superiority of the proposed approach.