This paper deals with 2 primary aspects associated with the implementation of WSN. The networking issues and the application problems. Large scale sensors produce a large amount of data and its very difficult to process such large quantities of data. Thus machine learning techniques should be implemented to make this process easier. The various problems associated with network architecture are listed below.

1. Energy aware Communication.- The major objective of the WSN architecture is to optimize energy consumption. The previous methods that were used were as follows, better routing protocols at the Network Layer or low power modulation scheme at the Physical Layer. However machine learning can be used to decrease energy consumption. By making the architecture more “Situation Aware.” Combinations of machine learning and fuzzy logic are implemented.

1. Node Deployment- The positioning of nodes is a very important aspect in designing an efficient architecture. Topographical knowledge about the area, signal strength and message delivery speeds are vital in deciding the node deployment. Techniques pertaining with fuzzy logic and machine learning are utilised. Even genetic algorithm is used.
2. Resource Allocation and Task Scheduling- This is a vital aspect of research as this requires extensive analysis. It uses the data of the above 2 and allocates appropriate resources to the nodes based on the data. The data inference is a part of the machine learning procedure.