

Edge Analytics

The research applied bio-inspired algorithm (e.g., Kestrel based algorithm) to edge computing infrastructure. The dynamic and adaptive behaviour of bio-inspired algorithms makes it suitable to real time data processing of edge device instead of sending data to be processed on cloud. Processing data on cloud results in some delay which is not ideal for real time response. Additionally, in real time environment, there are different situations that require different responses. In this regard, algorithms that are dynamic and adaptive can effectively handle data in real time. In our approach, we applied bio-inspired algorithm and edge computing to simulate data from real time environment in smart homes. One of the challenges in smart homes is how to minimize costs and maximize user satisfaction. During the simulation different sensors were deployed to collect real time data. These data were analyzed using a bio-inspired algorithm.