

Identification of Unauthorized Access Point in Wireless Network using Supervised Machine Learning Techniques

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Abstract:

A growing widerange use of wi-fi or mobile hotspots in public are prone to various risks in wireless environment. There is a significant risk of contracting different attacks resulting in falling victim to unauthorized attackers, particularly when utilizing Access points in different government sector office etc. Information protection requires the detection of unauthorized Access points. The main objective of the proposed work is to uses machine learning methods to assess the round trip time data set values in order to identify authorized and illegitimate Access points in wireless environments. Three different machine learning algorithms employed in the proposed work are Support vector machine, Random forests and K-Nearest Neighbors and their performance were analysed. The empirical results shows that Random forest algorithm achieves maximum accuracy of 99% compared to other machine learning models.

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