

Seminar Title	: Malicious UAV Detection in WSN
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Abstract	: In the modern era, Unmanned Aerial Vehicle (UAV) based Wireless Sensor Network (WSN) plays a vital role in wireless communication. Through UAV, the sensed data can be transmitted to the base station. However, the increasing number of network users leads several malicious attacks in UAV. Hence, it affects the performance of WSN platform while transmitting private information through UAV. Therefore, the proposed study intends to develop an effective malicious UAV detection approach using machine learning algorithm. Initially, the deployed sensor nodes in WSN are utilized to collect the environmental data. These sensor nodes transmits the collected data to UAV. During data transmission, the sensor nodes generates a feed packet (authentication parameter) and forward to UAV along with the sensed information. In order to secure the input data, the feedback packet is encrypted using proxy re-encryption scheme. These encrypted packet with the sensed input data are then transmitted to the base station. Finally, the feedback packet is decrypted and attains the actual input information. From the received data, the classification is performed using proposed Support Vector Machine with Shuffled Frog Leap (SVM-SFL) approach. The proposed approach is implemented with NS3 python tool and the results are analysed by evaluating several performance matrices. As compared with other existing methods, the proposed study obtained improved results in terms of accuracy (98.61%), precision (98.5%), sensitivity (98.63%) and F-measure (98.62%).