1. WORK PLAN AND METHODOLOGY:

a. WORK PLAN:

Following is the work plan for the proposed research:

Phase 1:

1. Study of proposed multimedia-based services in different wireless ad-hoc network and their correlation with the Vehicular ad-hoc network,
2. Literature survey for the research
3. Study of Multimedia services in Vehicular ad-hoc network and design proposed framework.
4. Research Paper to be prepared and presented in International Conference & journals.
5. Submission of Synopsis.

Phase 2:

1. Propose A high performance algorithm based on an artificial neural network structure to Improve QoS quality metrics that is severely degraded as the traffic and number of multiple hops increase. The algorithm is intended to find solutions which ensure network connectivity and keep the coverage above a certain level, while extending its lifetime.
2. Course Work-I &II in University Campus (200 Hrs.)
3. Research Paper to be prepared and presented in International Conference & journals.

Phase 3:

1. Research Paper to be prepared and presented in International Conference & journals.
2. Presentation to DRC for approval of topic.
3. Implementation of our proposed approach in real time environments through vehicular ad-hoc network simulators and compares with existing system.

Phase 4:

1. Finalizing the approach with results
2. Thesis writing and Submission of thesis
b. METHODOLOGY:

The scientific research method that will lead to this thesis includes four steps. First, the literature review will use to get an overview of the field. Second the theory building, composed by problem statement and hypothesis formulation. Third, the theory testing will use to verify the claims of our theory. Finally, the reflection on the experiments and results through conclusions. The theory testing can take many forms. Commonly used theory testing in computer science are the analytical and experimental methods. In analytical method, problems are modelled with mathematics and results are derived by formal symbol manipulations. The modelled system’s performance can be predicted under a range of conditions by varying the input parameters of the model. Analytical models generally provide better insight into the effects of various parameters and their interactions. However, it requires many simplifications and assumptions. In experimental method, problems are modeled by simulation, emulation, and real measurement. Experimental methods are often used when the model is too complex to allow analytical methods. In the same manner as analytical method, a simulation uses an abstract representation of the system. The abstraction is created by a computer program called the simulation tool. Compared to analytical method, it is easier to incorporate more details in the simulation, and, thus, simulations often produce more realistic results. Despite the advantages of simulation, simulators may require high computational complexity which leads to longer simulation time. During emulation, measurements are performed on a real implementation of a system running on real hardware. For this thesis we will mainly use simulation as research method.

My research will mainly focus on review of various developed standards for vehicular ad-hoc network, develop an approach to enable multimedia services over vehicular ad-hoc network and propose an algorithm for efficient transmission of services over vehicular network and deployment and testing of overall approach over VANET using simulators and discussion of our research work including future scope.