

Indian Institute of Technology, Jodhpur

Computer Science and Engineering Department

Course: Vehicular Ad Hoc Network (VANET)

Assignment-1

Date:13/9/2021

Submission Date: 20/9/2021

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Create a topology diagram and implement it in NS2 based on the following scenario.

There is a smart city having two road junctions of four roads, minimum of two RSU units, 2 two-lane roads, where vehicles cross each other. It is mandatory that there should be communication between vehicles to vehicles and Vehicles to RSUs, i.e., mandatory to show the V2V and V2R communication. Choose the best available routing algorithm (e.g., DSR, AODV, DSDV etc) for your designed topology. TCP model should be used as a network model for packet transmission. Show the performance of the topology based on the following parameters

1. Throughput (5)
2. Efficiency (5)
3. Packet loss ratio (5)
4. Handoff (5)
5. Packet transmission rate (5)