In this work, we have designed and implemented a novel Move Stop Deviate mobility model for Mobile ad hoc networks. In the MSD mobility Model, the node travels randomly for a total of 20 units before changing its direction, stops for a certain amount of time. Then it deviates angular direction (between angle 0, 45, 90, 135, 180, 225, 270, 315 only) and moves further. As soon as the boundary is reached, node gets back with the same velocity and traveling continuously at the same angle to reach the destination. The preceding process is repeated until the simulation termination condition is reached. The mobility metrics analysis has been done and also we have compared and analysed our novel MSD model with MANET protocols. The parameter metrics Packet Delivery Fraction, Routing load, and Latency have been taken into account. Our simulation result shows that the functioning of our MSD model has greatly influenced the performance of Routing Protocols in MANET environment. The result reveals the
fact that the Reactive routing protocol DSR outperforms much more than the Proactive routing protocol DSDV. Our Novel Model has performed well when we compare it with existing Waypoint mobility model while setting many source-destination connections.

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Analysing the Mobility and Protocol Performance in MANET using a Novel Move Stop Deviate Model

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