

graphs we can analyze that the throughput is high and waiting time is low for higher priority nodes in the proposed Priority based round robin TDMA protocol when compared to the existing Round robin TDMA.

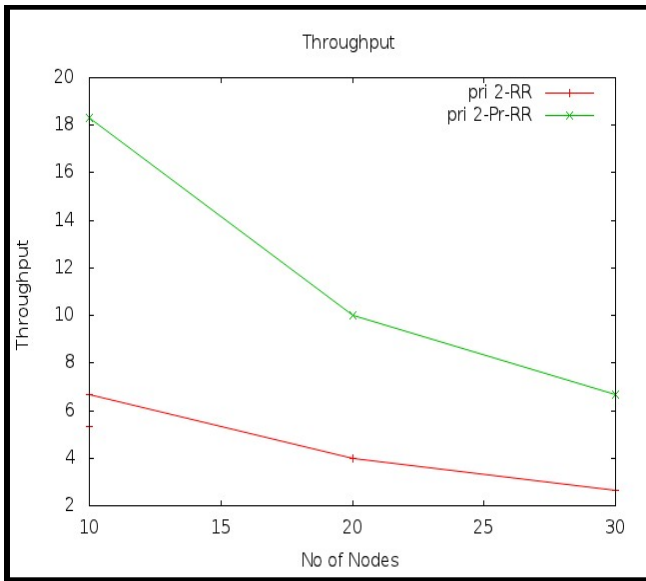


Figure 7: Throughput Versus no. of nodes for priority2 nodes

The performance improvement for the higher priority users is shown in the graphs. The throughput of the priority 1 users is almost 8% more than the throughput of the priority 2 users and the waiting time of the priority 1 users is almost 3% less than the waiting time of the priority 2 users. By observing this we can say higher priority users are satisfied with the priority based round robin Time Division Multiple Access.

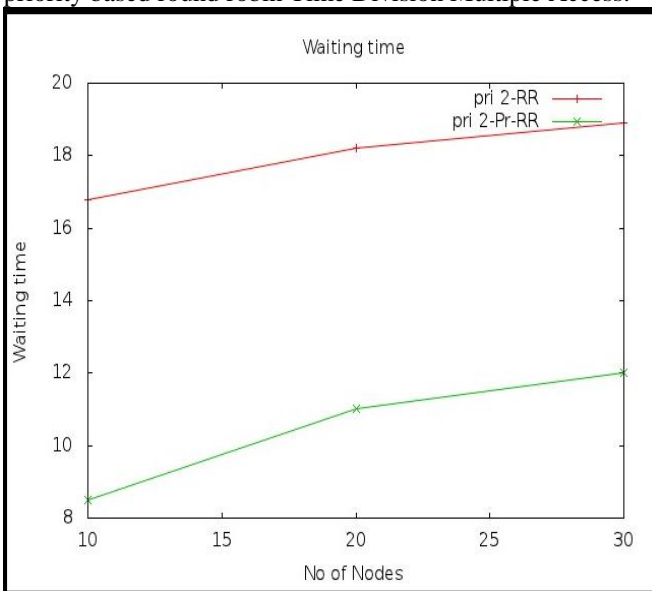


Figure 8: Waiting time Versus no. of nodes for priority2 nodes

5. Conclusion and Future Work

In this project, new class of MAC protocols based on cooperative learning that enables secondary stations to achieve and maintain perfect coordination is proposed. Our proposed MAC protocols are completely distributed,

requiring neither any central control nor any exchange of control messages between secondary stations, fast, scalable. This protocol eliminates the defects of implementing round-robin TDMA. The proposed protocol achieve a priority based round robin Time Division Multiple Access schedule, where timeslots were split to the users according to their priority. The proposed protocol is designed to achieve high throughput by allocating more slots and decreasing waiting time for the secondary users with emergency data. The performance of the proposed PRRTDMA was evaluated using the NS2 network simulator and the proposed protocols shows improvement in performance by 20%-25% in terms of throughput and waiting time when compare to the existing RRTDMA protocol. In future, we can incorporate concept of PRRTDMA with the rendezvous scheduling

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