

Figure 9: Energy Consumption at PSM & PC

Fig.9 shows the information about the energy consumption at combination of PSM & PC. Here BO is increases remaining energy is decreases.

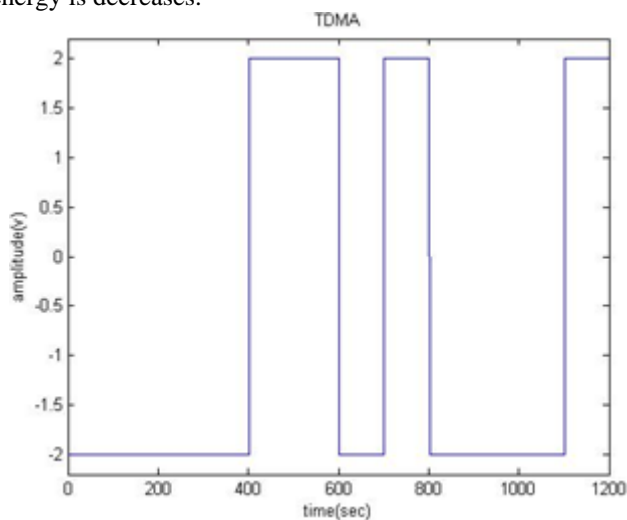


Figure 10: TDMA signal

Fig.10 shows the information about the transmitting the data in preferred time slot i.e. within slot data is transmitting.

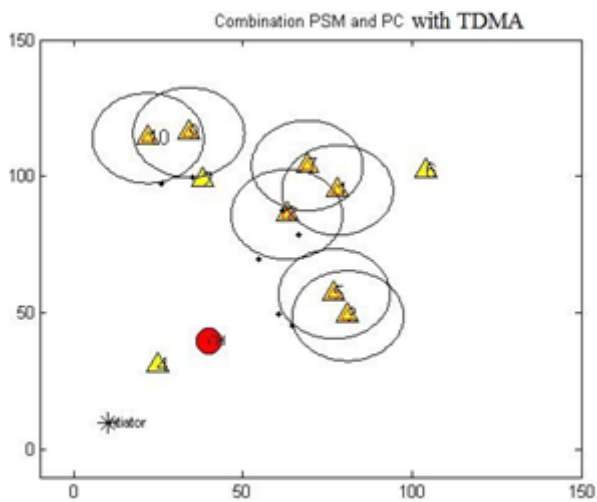


Figure 11: Combination of PSM & PC with TDMA

Fig.11 shows the information about the connecting the nodes and channels and also transmitting data at the combination of PSM & PC with TDMA

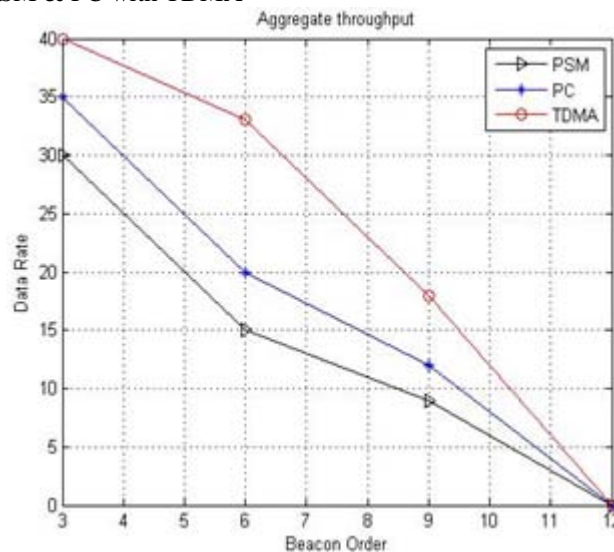


Figure 12: Aggregate Throughput at PSM & PC with TDMA

Fig.12 shows the information about the aggregate throughput at combination of PSM & PC with TDMA. Here when the BO is increases data rate is decreases than PSM & PC.

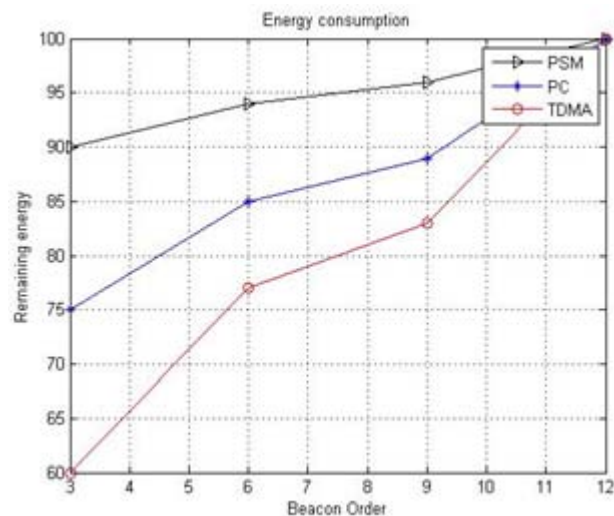


Figure 13: Energy Consumption at PSM & PC with TDMA

Fig.13 shows the information about the energy consumption at combination of PSM & PC with TDMA. Here BO is increases remaining energy is decreases than PSM & PC.

7. Conclusion

In this thesis, a robust hybrid power saving mechanism has been implemented to reduce the limitation of power consumption in wireless sensor networks. Here we are using IEEE 802.15.4 protocol for establishing communication between wireless sensor nodes. We know that the individual methods like PSM and PC techniques are used for reducing the power consumption. But the combination of PSM and PC techniques saves more power than individual i.e. the combination of PSM and PC gives improved performance in terms of conserving power but lag in throughput. So to

overcome this problem we included the TDMA protocol to the IEEE 802.15.4 protocol. By adding TDMA protocol we obtained an extent result compare with combination of PSM and PC i.e. significant reduction in power consumption and improvement in throughput.

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