







Capacity is calculated for symmetric and asymmetric proposed system multi level physical layer network coding with cyclic code and select max protocol .also the capacity calculated for linear coding and parallel independent decoding .capacity is plotted against signal to noise ratio and could observe that proposed system has best performance compared with the existing system is shown in fig 4 and 5. Bit Error Rate is calculated for symmetric proposed system multi level physical layer network coding with cyclic code and select max protocol .also the Bit Error Rate calculated for linear coding and parallel independent decoding . Bit Error Rate is plotted against signal to noise ratio and could observe that proposed system has best performance compared with the existing system is shown in fig 6 and 7. Achievable Rate is which shows the efficiency of transmission rate. Achievable Rate is calculated for proposed system multi level physical layer network coding with cyclic code and select max protocol .also the Achievable Rate calculated for linear coding and parallel independent decoding . Achievable Rate is plotted against signal to noise ratio and could observe that proposed system has best performance compared with the existing system is shown in fig 8.

#### 4. Conclusion

Multi level physical layer network coding is employed using cyclic codes .Therefore Error detection, correction and syndrome calculation can be easily employed using shift registers, also Relay selection from multi relay system is based on select-max-protocol for best relay selection. This protocol decides whether relaying is needed or not. best relay selection reduces the number of unwanted resources .The overall reduces BER and increases achievable rate. This system is an application of wimax, green communication, this is the communication in which resource wastage is reduced

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