Morkov Chains - MAC Modelling

Course Content:

1. **Markov Chains:** Discrete Time, Continuous Time, State classifications, Birth Death processes, Network of queues
2. **MAC protocols:** CSMA/CA, QoS parameters − Reliability, Latency, State diagram of CSMA, 2 Dimensional Markov Model of CSMA, 3 Dimensional Markov Model of CSMA

Reference Books:

1. Research papers from IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile computing
2. J. Zheng and M. L. Lee, "A comprehensive performance study of IEEE 802.15.4," in IEEE Press Book, 2004
3. Dimitri P. Bertsekas and Robert G. Gallager, "Data Networks," (2nd edition) Prentice Hall, 1992
4. Anurag Kumar, D Manjunath, and Joy Kuri, Wireless Networking, published by Morgan Kaufman Publishers (a division of Elsevier Science) in the Morgan Kaufman Networking Series (edited by David Clark), March 2008, 450 pages