

SUMMARY AND CONCLUSION

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Retrial queueing systems with positive and negative customers accommodating unreliable server and orbital search are considered in the thesis.

An M/G/1 retrial G queue with server breakdown is analysed in chapter 2. In chapter 3, batch arrival retrial G queue with server breakdown is considered. A single server retrial G queue with server breakdown and orbital search is discussed in chapter 4. In chapter 5, unreliable batch arrival retrial with positive and negative customers and orbital search is presented in chapter 5.

The models considered are investigated using supplementary variable technique to obtain performance measures and reliability indices. Stochastic decomposition law is verified and special cases are discussed. Numerical analysis are carried out to analyse the effect of parameters on the system performance.