Objective of the Study:

- To provide the optimal buffer level when stochastic situation arise in queueing system.

- Develop the relationships between minimum and maximum values of the pertinent stochastic processes and the optimal design variables of interest through random walk and renewal arguments.

- Use of computer simulation to estimate the numerical values in those relationships. The approximations can be applied to complex lines producing multiple types of parts.

- To test the theory on the practical situation.