

DECLARATION

I hereby declare that the thesis entitled "**BATCH ARRIVAL QUEUEING SYSTEMS WITH BI-LEVEL CONTROL POLICY, VACATIONS, BREAKDOWNS AND HETEROGENEOUS SERVICE FACILITIES**" submitted to the Avinashilingam Deemed University for Women, Coimbatore, in partial fulfillment of the requirements for the award of the Degree of Doctor of Philosophy in Mathematics is a record of original research work done by me under the supervision and guidance of **Dr. (Tmt.) M. I. AFTHAB BEGUM**, M.SC., M.Phil.,(Annamalai), Ph.D.,(Bharathiar), Professor, Department of Mathematics, Avinashilingam Deemed University for Women, Coimbatore, and it has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or similar title to any candidate of any other University.

M. Julia Rose Begum

Signature of the Candidate

Afthab Begum

Signature of the Guide