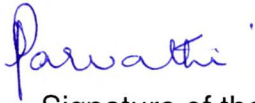


CERTIFICATE

This is to certify that the thesis entitled "**BATCH ARRIVAL QUEUEING SYSTEMS WITH BI-LEVEL CONTROL POLICY, VACATIONS, BREAKDOWNS AND HETEROGENEOUS SERVICE FACILITIES**" submitted to the Avinashilingam university for Women, Coimbatore, for the award of the Degree of DOCTOR OF PHILOSOPHY IN MATHEMATICS, is a record of original research work done by Mrs. K. JULIA ROSE MARY during the period of her study in the Department of Mathematics, Avinashilingam Deemed University for Women, Coimbatore, under my supervision and guidance and the thesis has not formed the basis for the award or any Degree / Diploma / Associateship / Fellowship or similar title of any candidate of any university.



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