

CERTIFICATE

This is to certify that the thesis entitled “**Exploring Neutrosophic Set Variants: Investigating Topological Insights, Approximation Spaces and Decision-Making Approaches**” submitted to the Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, in partial fulfilment of the requirement for the award of the Degree of **Doctor of Philosophy (Ph.D) in Mathematics** is a record of original research work done by **S. Bhuvaneshwari** during the period of her study (July 2021- October 2025) in the Department of Mathematics at Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, under my supervision and guidance and the thesis has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or another similar title of any candidate of any other University.

**Signature of the
Head of the Department**

**Signature of the
Supervisor**

Signature of the Dean

DECLARATION

I hereby declare that the thesis, titled “**Exploring Neutrosophic Set Variants: Investigating Topological Insights, Approximation Spaces and Decision-Making Approaches**” submitted to the Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, in partial fulfilment of the requirement for the award of the Degree of **Doctor of Philosophy (Ph.D) in Mathematics** is a record of original and independent research work done by me during the period under the supervision and guidance of **Dr. C. Antony Crispin Sweety, M.Sc., B.Ed., M.Phil., Ph.D.**, Assistant Professor, Department of Mathematics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, and it has not formed the basis for the award of any Degree/ Diploma/ Associateship/ Fellowship or another similar title of any candidate of any other University.

Signature of the Supervisor

Signature of the Candidate

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