Title of the Thesis: **"Geometry of Submanifolds of Almost Contact Metric Manifolds"**

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Summary:

The thesis comprises five chapters. The first chapter is introductory. In chapter II, we characterize slant submanifolds of a Kenmotsu manifold and obtain a necessary and sufficient condition for a 3-dimensional submanifold of a 5-dimensional Kenmotsu manifold to be a minimal proper slant submanifold.

Chapter –III is devoted to the study of the endomorphism P ($P^2 = Q$) and the normal bundle-valued 1-form F. We prove that a slant submanifold of a Trans-Sasakian manifold is an anti-invariant submanifold if and only if $\nabla Q = 0$. Moreover, we prove that a 3- dimensional submanifold of a 5-dimensional Trans-Sasakian manifolds is a minimal proper slant submanifold if and only if

$$(\nabla_X F)Y = \alpha\{2\eta(X)FPY + \eta(Y)FPX\} - \beta\eta(Y)FX.$$

Similar to slant submanifolds in a Kenmotsu and trans-Sasakian manifolds, we have studied slant submanifolds of a cosympletic manifold in chapter IV.

Chapter V is devoted to the study of existence and uniqueness theorem of slant immersion in cosympletic manifold.