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HEMI-SLANT SUBMANIFOLDS OF GENERALIZED D-CONFORMAL DEFORMED β-KENMOTSU MANIFOLD

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Abstract: We study some geometric properties such as integrability, geodesic foliation of hemi-slant submanifolds of generalized D-conformal deformed β-Kenmotsu manifold.

Keywords and Phrases: Hemi-slant submanifolds, generalized D-conformal deformation, integrability, geodesic foliation.

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1. Introduction

Study of slant submanifolds was initiated by Chen [8], as a generalization of both holomorphic and totally real submanifolds of a Kahler manifold. Slant submanifolds have been studied in different kind of structures: almost contact [9], neutral Kahler [2], Lorentzian Sasakian [3], and Sasakian [5] by several geometers. Papaghiuc [12] introduced semi-slant submanifolds of a Kahler manifold as a natural generalization of slant submanifold. Sari and Vanli [13] investigated semi-slant submanifolds of a Lorentz Kenmotsu manifold and obtained some curvature properties for semi-slant submanifold of a Lorentz Kenmotsu space form. Carriazo [6], introduced bi-slant submanifolds of an almost Hermitian manifold as a generalization of semi-slant submanifolds. One of the classes of bi-slant submanifolds is that of anti-slant submanifolds, which are studied by Carriazo [6].

In [1], generalized D-conformal deformations are applied to trans-Sasakian manifolds where the covariant derivatives of the deformed metric is evaluated under the