

**CONCIRCULAR CURVATURE TENSOR ON ALMOST
KENMOTSU MANIFOLDS ADMITTING
THE NULLITY DISTRIBUTIONS**

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Abstract: The object of the present paper is to study almost Kenmotsu manifolds with characteristic vector field ξ belonging to some nullity distributions, considering concircular curvature tensor. Locally ϕ -concircularly symmetric almost Kenmotsu manifolds, concircularly ϕ -recurrent almost Kenmotsu manifolds and locally concircularly ϕ -recurrent three-dimensional almost Kenmotsu manifolds are studied. And we have obtained some interesting results.

Keywords and Phrases: Almost Kenmotsu manifolds, Nullity distributions, Concircular curvature tensor.

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1. Introduction

Nowadays the study of nullity distributions occupies an important position in differential geometry. In 1966, Gray [10] introduced the notion of k -nullity