ABSTRACT

CLIFFORD MINIMAL HYPERSURFACES

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The study essentially consists of three chapters. The notions of advanced differential geometry such as tensor components, tensor derivations, differential operators besides the basic notions of differential geometry are given in the first chapter. Furthermore, the fundamental theorems and examples in the papers used in this study are given in this chapter.

In the second chapter of this study, The Clifford hypersurfaces in the spheres are given. In particular, the paper of Alias, Brasil and Perdomo [11] in 2008 and the paper of Deshmukh [12] in 2010 are examined in this chapter.

Chern, DoCarmo and Kobayashi and indepedently Lawson have proved the characterization for the Clifford minimal hypersurfaces in the spheres. An another proof for the characterization of Oscar Perdomo in 2005 [4] are given in the final chapter of this study.

Key Words

Hypersurfaces, Minimal Hypersurfaces, Sphere, Shape Operator, Clifford hypersurfaces, Mean curvature