The goal of the present thesis is to introduce on a Riemannian *Spin*manifold a system of partial differential equations for spinor-valued differential forms called Killing equations. We study basic properties of several types of Killing fields and relationships among them. We provide a simple construction of Killing spinor-valued forms from Killing spinors and Killing forms. We also review the construction of metric cone and discuss the relationship between Killing spinor-valued forms on the base manifold and parallel spinor-valued forms on the metric cone.