

Prostate cancer is reported to be the second most diagnosed cancer of men all over the world. In the last decades, new imaging techniques based on MRI have been developed improving the diagnosis task of radiologists. In practice, diagnosis can be affected by multiple factors reducing the chance to detect potential lesions. Computer-aided detection and computer-aided diagnosis have been designed to answer to these needs and provide help to radiologists in their daily duties. Research on computer-aided systems specifically focused for prostate cancer is a young technology and part of a dynamic research field for the last ten years. This survey aims to provide an overview of the researches carried out in this lapse of time and more precisely a comprehensive review of all the different stages composing the work-flow of a computer-aided system. We also provide a comparison between these studies and a discussion about the potential avenues for future research. In addition, we bring to the research community's knowledge the creation of a public online dataset aiming at providing solutions to the drawbacks identified in this survey.