

# TECHNOLOGY APPLIED TO IMPROVEMENT OF SPORTIVE PERFORMANCE

## 1. Introduction

The development of science and technology has allowed man to explore nature and the world in various dimensions, and sports is no different. Increasing training methods optimize sports performance.

Statistical analysis helps to predict the actions of opponents in the game for better response scheduling also helps with biomechanical analyses of the performance of sports motor skills, the use of biofeedback for movement corrections and the use of simulators in virtual reality, are presented as potential tools for coaches and athletes.

Computerized video equipment corrects in real time and evaluate in detail all the factors of the athlete's performance as virtual reality instruments provide the practice of environments that condition the earliest development of readiness to various sports situations.

The development of science allowed man to dominate and relate to nature on his own benefit. As an example, one can cite the study of the mechanical properties of biomaterials. That knowledge is used in engineering, biomechanics and ergonomics, for the development of diverse products. As a result, sneakers are manufactured with technology suitable for absorbing impact and for situation. A marathon tennis player, for example, has great low-impact magnitude, presenting, at the same time, great amplitude and little restriction of movement for the athlete, while a basketball player's sneakers need shock absorption with greater magnitude and restriction of movement, because in this modality the player performs many sudden movements that may pose a greater risk of injury.

In this scope, science and technologies have become basic requirements for the development of a high-performance athlete and in this paper will be presented practical examples on how technology have been used to improve performance.

## 1.1 Aim and Research Questions.

This article aims to present to the reader the knowledge about the use of technology and in what ways this can be useful, both for athletes, with software that improve their performance and treat injuries.

- How can technology be used for improving athlete's performance?
- How can technology be used in order to prevent injuries?