Robotics and Embedded Systems
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Diplomarbeit - Master Thesis - Bachelor Thesis

Quantitative Analysis of Soccer Games

In cooperation with Universidad de Flores, Argentina

Quantitative Analysis of Soccer Games

Keywords

Bayesian Tracking, Motion Analysis, Soccer, Registration, Computer Vision, Sport Sciences, Statistics

Motivation

Professional post-analysis is a key methodology in many sport disciplines for evaluating player performance, pursuing optimal training programs or studying strategic behaviors. Due to the labor-intensive nature of estimating statistical properties of interest, it is desired to automate the data collection as well as the data analysis and visualization in real-time.

This thesis is provided in collaboration with Universidad de Flores, Argentina.

Task Description

The work of this thesis can be subdivided in three major working phases:
a) Literature research, state-of-the-art comparison, requirements engineering, hands-on experience with OpenTL. b) Methodology selection and evaluation, implementation and testing. c) Writing the thesis and providing comprehensive experimental results.

Prerequisites

Along with concentrated passion for this topic this thesis will require consolidated knowledge in at least the following areas: C++ programming, computer vision, fundamental mathematics.

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