# Development of an Intelligent Real-Time Feedback System

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## Abstract

A system for optimizing athletes' sport performances has been designed and partially assembled on the basis of the already implemented "Mobile Coaching" and "PerPot" concepts. The intention of Mobile Coaching is to assist sportsmen via feedback information derived from physiological and biomechanical parameters recorded during physical activity. PerPot is an antagonistic model for predicting load-based performance developments. By combining the main features of both approaches, the newly developed framework is able to automatically provide athletes with live-feedback during marathon running, thereby optimizing the performance by avoiding overload and underperforming.

KEYWORDS: SPORT APPLICATION, BODY SENSOR NETWORK, REALTIME FEEDBACK, SIMULATION, PERFORMANCE