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Nota di contenuto	Preface; Programme Committee; External Reviewers; Invited Keynote Speakers; Contents; Part I Image Processing in Sport; 1 Non-Invasive Performance Measurement in Combat Sports; 1 Introduction; 2 Methods; 2.2 Athlete Detection; 2.3 Tracking and Occlusion Handling; 2.4 Athletes Movement Analysis; 3 Results; 4 Conclusions; 5 Acknowledgments; References; 2 Comparison between Marker-less Kinect-based and Conventional 2D Motion Analysis System on Vertical Jump Kinematic Properties Measured from Sagittal View; 1 Introduction; 2 Method; 2.1 Subject; 2.2 Instrumentation 2.3 Data collection and processing 3 Results and Discussion; 4 Conclusion; Acknowledgment; References; 3 Test of ball speed in table

tennis based on monocular camera; 1 Introduction; 2 Methods; 2.1 Participants; 2.2 Testing method of ball speed; 2.3 Experiment; 3 Results; 3.1 General features of striking speed of top female players; 3.2 Comparison of ball speed of forehand loop-drive in the Two to One practice; 3.3 Comparison of ball speed of backhand loop-drive in the Two to One practice; 3.4 Comparison of ball speed in forehand loop-drive against backspin practice  
 3.5 Comparison of ball speeds in forehand moving loop-drive practice  
 4 Conclusion; References; 4 Table tennis and computer vision: a monocular event classifier; 1 Introduction; 2 The proposed classifier; 2.1 Event states; 2.2 Event motion thresholds; 3 Classification results; 4 Conclusion; References; 5 3D reconstruction of ball trajectory from a single camera in the ball game; 1 Introduction; 2 Methods; 2.1 Camera Calibration; 2.2 3D reconstruction of ball trajectory; 2.3 Our improvement; 3 Experiment; 4 Conclusion; Acknowledgement; References; Part II It System for Sport  
 6 Towards a Management Theory for the Introduction of IT Innovations in Top Level Sports  
 1 Problem; 2 Theoretical concepts; 2.1 Product and innovation life cycle theory; 2.2 Innovation management theory; 2.3 Customer Relationship Management Theory; 3 Examples of Best Practice; 4 Conclusions; 5 References; 7 Information Systems for Top Level Football; 1 Introduction; 2 Problem definition; 3 Concept for software modelling; 3.1 Complex performance diagnostics (CPD); 3.2 Software selection; 3.3 Data collection; 4 Software modelling; 4.1 Status quo at the youth academies; 4.2 Software development  
 4.3 Developing analyses  
 4.4 User interface (UI); 5 Conclusions; References; 8 Frame by frame playback on the Internet video; 1 Where the problem is?; 2 Why the Internet videos can't perform frame-by-frame?; 3 The purpose of the article; 4 The implementation of frame-by-frame on Smart-method; 5 Applications of Smart-method; 5.1 For Sports video browsing; 5.2 Implementation of thumbnail; 5.3 Implementation for Editing; 5.4 The possibility for Sports analysis; References; Part III Ai in Sport; 9 Computational system for strategy design and match simulation in team sports; 1 Introduction  
 2 Methods

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Sommario/riassunto

This book presents the main scientific results of the 10th International Symposium of Computer Science in Sport (IACSS/ISCSS 2015), sponsored by the International Association of Computer Science in Sport in collaboration with the International Society of Sport Psychology (ISSP), which took place between September 9-11, 2015 at Loughborough, UK. This proceedings aims to build a link between computer science and sport, and reports on results from applying computer science techniques to address a wide number of problems in sport and exercise sciences. It provides a good platform and opportunity for researchers in both computer science and sport to understand and discuss ideas and promote cross-disciplinary research. The strictly reviewed and carefully revised papers cover the following topics: Modelling and Analysis, Artificial Intelligence in Sport, Virtual Reality in Sport, Neural Cognitive Training, IT Systems for Sport, Sensing Technologies and Image Processing.

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