

# IACSS - NEWSLETTER

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## IACSS FACTS

Currently, there are eight ***national associations***.

***Issue 1 of volume 15*** of the International Journal for Computer Science in Sports (IJCSS) is published.

At present ***523 colleagues*** from over 50 countries ***are interested in IACSS*** – they either are subscribed to receive this Newsletter or to the E-Group. Subscribe to E-Group: <http://www.iacss.org/index.php?id=34>

## IMPRINT

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## PRE-OLYMPIC CONFERENCE, 2016, BRASILIA, BRAZIL

From 31<sup>st</sup> of July to 03<sup>rd</sup> of August, 2016, our 3<sup>rd</sup> Pre-Olympic conference was held in Brasilia, Brazil. It was organized by the Faculty of Physical Education at Universidad do Brasilia (UnB). 75 participants from Brazil and delegates and invited researchers from 10 countries attended invited lectures, plenary sessions and plenary discussions on all topics of sports informatics. Particularly, it was inspiring for IACSS scientists to meet colleagues from Brazil and South America and discuss their great approaches.



The conference took place at FINATEC, a very well suited place for IACSS intention to bring people together in scientific discussions as well as informal meetings. There was a get-together reception, a reception at the residence of the German ambassador, a barbecue evening and the congress dinner.

IACSS has to thank especially Prof. Tiago Russomanno and his many helping hands for organizing the conference in a perfect manner and creating an atmosphere of great cordiality.

Further, IACSS expresses its hope that the numerous contacts and ideas for common projects at the conference will give rise to a deepened cooperation with sports informatics in Brazil.

## OPEN ASSETS PROJECT

In the course of the conference assembly at Pre-Olympic congress at Brasilia some colleagues pointed out that a common obstacle preventing especially young researchers from going into sport informatics is the lack of specific data and assets. For example, the big data sets in professional football are controlled by clubs or federations sharing it only with selected researchers.

To overcome these problems IACSS wants to start its "Open assets project". On one hand, researchers that own interesting assets from a sport informatics perspective like data or software are asked to "donate" these assets to IACSS' open assets platform. On the other hand, researchers are invited to download these assets and to do research with it, e.g. develop new models and tools for sports data analysis.

After this announcement, we will discuss technical and organisational questions among IACSS board members. Some points in the sense of a "user's guide" will be given for donators as well as for users of assets from the open assets project. E.g. a precise and quotable source of data or software is required from the donator and any publication of the user resulting from these assets has to quote the donator.

The aim is to enable especially young researchers to take part in the investigation of research questions that are actual topics in sport informatics. By developing new ideas and approaches, they will also contribute to progress in sports informatics. Moreover, colleagues from disciplines like informatics, mathematics or economics will find an opportunity to apply their methods to new problems in sports.

Like the tutorial initiative of IACSS announced in recent issues of this newsletter the idea of an Open Assets Project dealing with relevant data from sports informatics has a big potential for stimulating interest in topics of IACSS as well as recruiting active members. Everybody who wants to support this idea is encouraged to think about assets he may provide to IACSS Open Assets project. Also, it would be helpful if we would receive demands concerning assets of particular interest and low availability from potential users.

Ideas proposed so far are: Sets of positional data from different game sports, open source software in position detection, movement trajectories of typical sports movements, historical data of sports rankings, and others.

## OPEN ACCESS IJCSS

As reported in the last newsletters already, the IJCSS has been turned into an open access journal. Starting with the summer issue 2016 the new articles are accessible at de Gruyter Open (<https://www.degruyter.com/view/j/ijcss>). In contrast to other open access journals publishing is free for authors at the IJCSS since IACSS is taking care of the publication fees. Currently, we are applying for the impact factor from Thomson Reuters. Since shortly the IJCSS is listed in Elsevier's Scopus database. The Elsevier impact per paper citation index (IPP) is very similar to the Thomson Reuters' index. The IPP of the IJCSS was 0.3 in 2014 and 2015.

We would like to encourage you and your colleagues to submit papers fitting to the topics of IJCSS. Papers can be submitted every time and are reviewed by two anonymous reviewers. Additionally to the human review, all papers are checked for plagiarism using the CrossCheck system. The double blind review is usually fast and constructive.

## IJCSS - E-JOURNAL

**Volume 15, 2016, Edition 1 is online since July, 2016.**

The issue contains the following research papers, reports and book review:

*Serrien, B., Clijsen, R., Anders, S., Goossens, M., Baeyens, J-P.*

Intra-seasonal Variability of Ball Speed and Coordination of Two Team-Handball Throwing Techniques in Elite Male Adolescent Players.

*Wenninger, S., Lames, M.*

Performance Analysis in Table Tennis - Stochastic Simulation by Numerical Derivation

*O'Donoghue, P., Ball, D., Eustace, J., McFarlan, B., Nisotaki, M.*

Predictive models of the 2015 Rugby World Cup: accuracy and application

*Morgan, S.*

Computer Science in Sport – Research and Practice: A book review

<http://www.degruyter.com/view/j/ijcss.2016.15.issue-1/issue-files/ijcss.2016.15.issue-1.xml>

## REPORTS FROM NATIONAL ASSOCIATIONS

### Symposium of the German association on computer science in sport, 14.-16.9.2016, Magdeburg, Germany

The biannual meeting of the German association on computer science in sport was organized by IACSS board member Kerstin Witte and her team and took place at the Otto-von-Guericke University Magdeburg. There were five keynote lectures given by Tim Laue, University of Bremen (“Sportrobotik - Benchmark und Anwendung multisensorischer Systeme“), Ralf Lucklum, Otto-von-Guericke University Magdeburg, (“Sensoren im Sport”), Syn Schmitt, University of Stuttgart, (“Modellierung und Simulation menschlicher Bewegung“), Guido Brunnett, TU Chemnitz, (“Avatare und autonome Agenten für den Einsatz in der Sportwissenschaft“), and Björn Eskofier, Friedrich-Alexander University Erlangen-Nürnberg, (“Wearable computing systems for recreational and elite sports“). Further, about 30 excellent presentations were given on current computer science in sport topics, in particular on sensors in sport, virtual reality and feedback systems. Additionally, there was a poster session as well as a poster award specifically for students.

We would kindly like to thank Kerstin Witte and her team for the excellent organized conference.

## IACSS - MEMBERSHIP

The membership is open to individuals, groups, and national and international organizations interested in computer science in sport. Membership in the Association consists of the following classes: member, fellow, student member, special member and affiliate member. Membership generally requires the submission of an application accompanied by the appropriate fee as prescribed at the time of the application.

The membership fee includes the annual subscription to the E-Journal 'International Journal of *Computer Science in Sport*' (IJCSS). The membership year is the calendar year. The Membership Application Form can be found on <http://www.iacss.org> under IACSS-Registration.

## IACSS – MEMBERSHIP - FEES

### Fees 2016:

Standard:	40 Euro
Students:	20 Euro
Institutional subscriptions:	80 Euro

More information:

<http://www.iacss.org/index.php?id=30>

## PAST EVENTS AND CONFERENCES

### ECSS, 6<sup>th</sup>-9<sup>th</sup> July 2016, Vienna, with Specific Sessions on Computer Science in Sports

The ECSS 2016 conference took place in Vienna. IACSS honorary president Arnold Baca was part of the organization committee and the congress president. Due to the effort of some IACSS members some computer science and sport specific sessions were held during the ECSS.

There was the plenary session “*Crossing borders through technology*”. Two renowned speakers could be gained, Thomas B. Moeslund (Aalborg University, Denmark) who talked about “Computer Vision in Sports” and Sigmund Loland (Norwegian School of Sport Sciences, Norway) who gave the lecture “Innovative Technology in Sport: Ethical Perspectives”.

Further two invited sessions were organized. The first session was about “*Technology and Modelling in Game Sports*”. Three well-known game sport researchers were invited to present state of the art of technology and models used in game sports research. Grant Abt (University of Hull, UK) talked about “The future of wearable technology for game analysis”, Martin Lames (Technical University of Munich, Germany) gave the lecture “Practical impact of modern performance analysis in football”, and Ricardo Duarte (University of Lisbon, Portugal) gave the presentation “Game analysis in the era of big data: A synthesis approach”.

The second invited session was on “*Innovative Technology for Analyzing, Improving and Encouraging Athletes' Performance*”. Three well-known experts from the field of sports technology were acquired for this session.

Cathy Craig (Queens University Belfast, Northern Ireland) gave the lecture “Virtual reality technology: How can it help us understand decision-making in sport?”, Veit Senner (Technical University of Munich, Germany) talked about “Advanced technologies for better performance and injury prevention in snow sports”, and Uwe Kersting (Aalborg University, Denmark) gave a presentation on “The use of performance measurement systems for both elite and recreational athletes”.

We would kindly like to thank the organizers of these three sessions for their effort. It was a great opportunity to present cutting edge research of the field of computer science in sport to a large audience at the ECSS which was attended by more than 2,500 researchers.

### **Workshop Modeling in Endurance Sports 2016, 11.-13.9.2016, Konstanz, Germany**

Dietmar Saupe organized an international workshop on modeling in endurance sports at the University of Konstanz from September 11-13, 2016. The conference was very successful in attracting a large number of participants (almost 100) from many countries including, Australia, Austria, Belgium, France, Netherlands, UK.

Topics were from sports science, physiology, and informatics including data acquisition and visualisation, analysis and optimization of endurance training, modelling and simulation of performance, optimization of performance parameters, modelling of physiological processes like VO<sub>2</sub> kinetics, fatigue, and critical power.

Invited speakers were Chris Abbiss, (Edith Cowan University, Perth, Australia), Jim Martin (University of Utah, Salt Lake City, USA), Daniel Green (Head of Sports Science at Trek-Segafredo Cycling Team) and Rob Kitching (Head of Engineering & Analytics, [www.cyclingpowerlab.com](http://www.cyclingpowerlab.com), London, UK), outstanding experts in their fields.

A variety of endurance sports was dealt with including running, rowing, speed skating, cross-country skiing, football and swimming. Most experts, though, including Dietmar's Konstanz research group were dealing with cycling. It was interesting to learn that even Tour de France winners misbehave in final sprinting in lifting their heads and leaving the saddle.

We thank Dietmar for his efforts in organizing a successful conference very much in the spirit of IACSS: international, interdisciplinary, with many contacts and discussions.

## **UPCOMING CONFERENCES AND EVENTS**

### **11<sup>th</sup> International Symposium on Computer Science in Sport, 6.-9. September 2017, Konstanz, Germany**

In 2017 the next biannual symposium on computer science in sport will take place from 6.-9. September, 2017. IACSS board member Dietmar Saupe and his team will host the conference in Constance, a very beautiful city at Lake Constance. Constance is located in the very far southwest corner of Germany right next to the Swiss border. For international guests, it can be reached well via Zurich International Airport and a short train ride from there.

The conference will be open for IACSS spectrum of interdisciplinary topics in computer science and sports science. As usual, there will be specialists from informatics giving us an overview on achievements in their respective fields with possible applications to sports as well as reports from actual projects and outstanding results in sports informatics.

The First announcement is coming soon. Save the date!

### **International Conference on Computational & Experimental Engineering and Science - ICCES2017, 26.-30. June 2017, Madeira Island, Portugal**

The International Conference on Computational & Experimental Engineering and Science will take place in Funchal, Madeira Island, Portugal. IACSS honorary president Arnold Baca is organizing a symposium on *Computational Modeling in Sport and Human Movement Science* at ICCES2017. The main aim of this symposium is to bring together specialists from various fields related to Biomechanics, Sport Science, Training Science, Computational Vision, Machine Learning, Robotics, Mathematics, Informatics, Medical Imaging, Industry, among others. In addition, interactions between researchers from academia and industry shall be encouraged.

Deadline for submissions is 13<sup>th</sup> February, 2017. For further information please visit the conference [website](#).