

# IACSS - NEWSLETTER

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## IACSS FACTS

Currently, there are eight *national associations*.

**Issue 1** of **volume 14** of the International Journal for Computer Science in Sports (IJCSS) is published.

At present **597 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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## 10<sup>TH</sup> INTERNATIONAL SYMPOSIUM ON COMPUTER SCIENCE IN SPORT, SEPTEMBER 9-11, 2015, LOUGHBOROUGH, UK

The 10<sup>th</sup> International Symposium on Computer Science in Sport took place at the Campus of the University of Loughborough. It was organized by the colleagues of BACSSE headed by Paul Chung.



Farewell photo IACSS 2015, Loughborough

In the morning of September 9<sup>th</sup> IACSS president Martin Lames and Paul Chung, General Chair of the local organizing team, officially opened the 10<sup>th</sup> International Symposium on Computer Science in Sport. The conference started with a keynote lecture on *Architecture of Motor Performance - Building Blocks in Brain and Technology* given by Thomas Schack from the University of Bielefeld. Further keynote lectures were given by the IACSS honorary president Arnold Baca from the University of Vienna on *Computer Science in Sport - Taking Stock on the Occasion of the 10th International Symposium* and by Michael Hiley from the University of Loughborough about *Optimal Technique, Variability, and Skilled Performance*.

Participants from nine different countries gave excellent presentations on current developments in computer science in sport and contributed to fruitful discussions. The conference venue at Loughborough University campus where most of the participants had their accommodation was in favour of a great atmosphere of contacts and creativity.

At the end of the conference the best paper was awarded. Stuart Morgan came in on first place and Melanie Dietz contributed the best young investigators' paper.

IACSS wants to thank Paul Chung and his staff for the great organization and support, and all other involved parties and helping hands for the good spirit created.

## GENERAL ASSEMBLY 2015

During the 10<sup>th</sup> Symposium on Computer Science and Sport in Loughborough the biannual general assembly of IACSS was held. One of the main topics was the election of the new Board of Directors.

**President:** Martin Lames (Munich, Germany)

**General Secretary:** Stuart Morgan (Canberra, Australia)

**Treasurer:** Michael Stöckl (Vienna, Austria)

### **Elected Members of IACSS Board**

Hayri Ertan (Turkey)

Iwan Griffith (UK)

Larry Katz (Canada)

Rajesh Kumar (India)

Keith Lyons (Australia)

Chikara Miyaji (Japan)

Tiago Russomanno (Brasil)

Dietmar Saupe (Germany)

Josef Wiemeyer (Germany)

Kerstin Witte (Germany)

Hui Zhang (China)

### **Honorary Presidents of IACSS**

Arnold Baca (Austria)

Jürgen Perl (Germany)

## IACSS – TUTORIAL INITIATIVE

The interdisciplinary field of computer science in sports or sports informatics saw a continuous development in the last years. However, this development didn't take place in all countries at a comparable pace. It is the mission IACSS to distribute this knowledge as much as possible. Instruments so far have been international conferences and national associations.

As a further instrument the board suggested the IACSS-Tutorial Initiative. This initiative guarantees persons or institutions wanting to organize a workshop or seminar on sports informatics in his country that IACSS will address the most competent specialists in the area to act as tutor in this event.

The host should care for travel and accommodation during the stay, honorary and duration of stay are to be agreed on by organizer and tutor. IACSS expects that definition, systematics and interdisciplinary program of computer science in sport are part of the curriculum.

The aim of the IACSS-tutorial initiative is to establish contacts between scientists interested in sport informatics all over the world. Especially young researchers should get the opportunity to know as much as possible about our interesting scientific discipline.

## IJCSS - E-JOURNAL

**Volume 14, 2015, Edition 1 is online since June, 2015.**

The issue contains the following research papers and reports:

### Research Paper

*Gravenhorst, F., Muaremi, A., Draper, C., Galloway, M. & Tröster, G.:* Identifying Unique Biomechanical Fingerprints for Rowers and Correlations with Boat Speed? A Data-driven Approach for Rowing Performance Analysis

*Quintana-Duque, J.-C., Dahmen, T. & Saupe, D.:* Estimation of Torque Variation from Pedal Motion in Cycling

*Tamaki, S. & Saito, H.:* Reconstructing the 3D Trajectory of a Ball with Unsynchronized Cameras

### Project Report

*Fernando, T. & Piniidiyaarachchi, U. A. J.:* A hybrid algorithm for player arm biomechanics evaluation in outdoor sporting activities

*Hirotsu, N., Osawa, K. & Miyaji, C.:* Calculation of Probability of Winning and Number of Games Played for Various Tournament Formats of the World Baseball Classic

<http://iacss.org/index.php?id=153>

### IJCSS will become an Open Access Journal from 2016 on

Starting with the summer issue 2016 (volume 15, issue 1) the International Journal of Computer Science in Sport will be published open accessible at de Gruyter Open. There still will be two issues per year, one in June and one in December. The submission and reviewing process will stay the same and will be an obligation of IACSS organized by Arnold Baca, the editor in chief. De Gruyter provides the publication platform and helps us improving the visibility of IJCSS and, amongst others, applying for an impact factor. Authors who get an article accepted and published in IJCSS do not have to pay any publication fees.

<http://www.degruyter.com/view/j/ijcss?format=INT>

## REPORTS FROM NATIONAL ASSOCIATIONS

### Conference of the German Association of Computer Science in Sport

From September 10<sup>th</sup> to 12<sup>th</sup>, 2014 the biannual conference of the German Association on Computer Science and Sport (dvs-Sektion Sportinformatik) was co-organized together with the Austrian Association on Computer Science in Sport and held at the Institute of Sport at the University of Vienna.

Delegates from twelve different countries contributed presentations and made delightful discussions possible.

Keynote lectures were given by

- Prof. Peter Baumgartner (Danube University, Krems): *New educational strategies in E-Learning*
- Prof. Alois Ferscha (Johannes Kepler University Linz): *Sensor Based Activity Recognition – a Pervasive Computing Perspective*
- Bonnie Mohnsen, PhD (Bonnie's Fitware Inc.): *Physical Education 2020*
- Prof. Didier Stricker (DFKI, Kaiserslautern): *Finding, tracking and comparing with computer vision and motion sensors*

Impressions of the conference can be found on

<http://sportinformatik.at/dvs2014/index.php/en/impressions>

### Honorary President Jürgen Perl Awarded with Badge of Honour

IACSS honorary president Jürgen Perl was awarded with the golden badge of honour of the German association of sport science (dvs) during its biannual conference in Mainz. Jürgen received the award for his commitment in founding, establishing and further develop computer science in sport as branch of sport science in general and his efforts as president of the German association of computer science in sport, which is a section of the dvs. IACSS president Martin Lames gave the laudation for Jürgen in a ceremonial act (for interested readers it can be found [here](#), German!).

## 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.

## IJCSS – E-JOURNAL - 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

### "Modeling and Simulation of Sport Games, Sport Movements, and Adaptations to Training", September 13-16, 2015, Schloss Dagstuhl, Germany

From September 13<sup>th</sup>-16<sup>th</sup>, 2015, an impressive seminar on "Modeling and Simulation of Sport Games, Sport Movements, and Adaptations to Training" was successfully organized at Schloss Dagstuhl - Leibniz Center for Informatics. After 2006, 2008, 2011, and 2013 this seminar was the fifth on computer science in sport which was held in Dagstuhl.

This year emphasis was put on the interdisciplinary exchange between sports and computer scientists to

advance modeling and simulation technologies in selected fields of applications. About 30 invited participants, scientists and delegates from relevant companies, gave talks and had enriching discussions about modeling and simulation in game sports, sports movements and adaptations to training.

IACSS thanks the organizers Ricardo Duarte (Portugal), Björn Eskofier (Germany), Patrick Lucey (Australia), Martin Rumpf (Germany), and Josef Wiemeyer (Germany).

At the end of the conference Martin Lames (Germany), Stuart Morgan (Australia), Karen Roemer, (US) and Peter Carr (US) were selected as organizers for the next conference in this series of computer science in sport seminars at Schloss Dagstuhl.

[http://www.dagstuhl.de/no\\_cache/en/program/calendar/semhp/?semnr=15382](http://www.dagstuhl.de/no_cache/en/program/calendar/semhp/?semnr=15382)

## UPCOMING CONFERENCES AND EVENTS

### Pre-Olympic IACSS Conference, 31<sup>st</sup> July – 3<sup>rd</sup> August 2016, Brasilia, Brazil

The series of Pre-Olympic IACSS conferences is to be continued in 2016. Just before the Olympic Games in Rio de Janeiro will be opened (August 5-21, 2016), the congress will take place at the University of Brasilia in the Brazilian capital. Some important dates are:

December 20, 2015	Opening abstract submission and registration
<b>March 15, 2016</b>	<b>Deadline for abstract submission</b>
April 15, 2016	Notification of acceptance to authors
May 15, 2016	Deadline registration for presenting authors

For further details please visit [www.iacss2016.com](http://www.iacss2016.com)



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

The upcoming ECSS conference will take place in Vienna and IACSS honorary president Arnold Baca is part of the organization committee and will be the congress president. At this conference there will be the following computer science and sport specific sessions:

- Plenary session “*Crossing borders through technology*” (8<sup>th</sup> July); speakers: Thomas B. Moeslund (Computer Vision in Sports) and Sigmund Loland (Innovative Technology in Sport: Ethical Perspectives).
- Invited session “*Technology and Modelling in Game Sports*” (6<sup>th</sup> July); speakers: Grant Abt, Martin Lames, Ricardo Duarte
- Invited session “*Innovative Technology for Analyzing, Improving and Encouraging Athletes’ Performance*” (8<sup>th</sup> July); speakers: Cathy Craig, Veit Senner, Heather Driscoll

For further information please visit <http://ecss-congress.eu/2016/16/>

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

The 11<sup>th</sup> symposium of the German association of computer science in sport will take place at the Otto-von-Guericke University Magdeburg and will be organized by Kerstin Witte and her colleagues. The congress will focus on the development and application of sensors in sport. Further topics are:

- Virtual reality in sport
- Feedback systems
- Contributions of computer science in sport to the development of sports equipment
- Image and video processing
- Digital games and serious games (in sport)
- Data acquisition and data analysis

For further details please visit the [dvs webpage](#).

## **Workshop Modeling in Endurance Sports 2016, 11.-13.9., Konstanz, Germany**

Dietmar Saupe organizes a workshop on modeling in endurance sports which will take place at the University of Konstanz from September 11-13, 2016. It aims at mathematical, physiological and computer science related approaches to analyze performance and physiological processes in endurance sports such as running, cycling, rowing, skiing and swimming. The main topics of the workshop are:

- Data acquisition and visualization
- Analysis and optimization of endurance training
- Modeling and simulation of performance
- Optimization of performance parameters
- Modeling of physiological processes like VO<sub>2</sub> kinetics, fatigue, and critical power

For further details please visit the [webpage](#)

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

During the IACSS conference in Loughborough it was decided to host the next conference, the 11<sup>th</sup> International Symposium on Computer Science in Sport, in Konstanz, Germany. 20 years after the very first International Symposium on Computer Science in Sport, which was held in Cologne in 1997, this conference series is going to come back to Germany. Dietmar Saupe and his colleagues will organize the conference at the beautiful Lake Constance in September 2017.