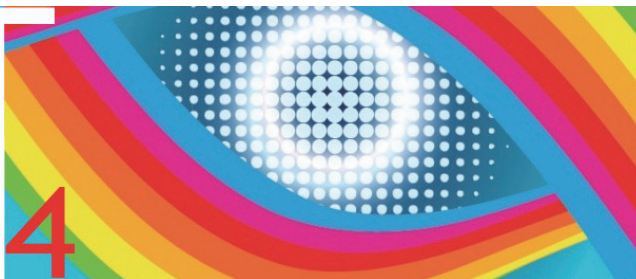


# BIOMET

23-24 June  
Sofia BULGARIA

2014



## Program Chairs

Virginio Cantoni, *Univ. of Pavia - I*

Dimo Dimov, *IICT-BAS, Sofia - BG*

## Program Committee

Agre Gennady, *IICT, BAS, BG*

Alexsiev Kiril, *IICT, BAS, BG*

Boumbarov Ognian, *Tech.Univ. of Sofia, BG*

De Marsico Maria, *Univ. of Rome, I*

Dittmann Jana, *Univ. of Magdeburg, D*

Fairhurst Mike, *Univ. of Kent, UK*

Gluhchev Georgi, *IICT, BAS, BG*

Hadjitodorov Stefan, *IBPBME, BAS, BG*

Margenov Svetozar, *IICT, BAS, BG*

Nappi Michele, *Univ. of Salerno, I*

Nikolov Stavri, *Attentive Displays Ltd., Sofia, BG*

Ortega-Garcia Javier, *Univ. Aut. de Madrid, ES*

Porta Marco, *Univ. of Pavia, I*

Ribarić Slobodan, *Univ. of Zagreb, HR*

Venkov Pencho, *Tech.Univ. of Sofia, BG*

## Invited Speakers

Massimo Tistarelli, *Univ. of Sassari, I*

Andrzej Drygajlo, *Lausanne Fed.Inst. of Tech., CH*

Mark Nixon, *Univ. of Southampton, UK*

Chang-Tsun Li, *Univ. of Warwick, UK*

## Scientific Secretary

Alessandra Setti, *Univ. of Pavia, I*

## BEST STUDENT PAPER AWARD

(sponsored by the *Group of Italian Researchers in Pattern Recognition - GIRPR*) conferred in recognition of the originality of the research, the quality of the presentation and the contribution to the biometrics developments.



## 23 June 2014

08:30 - 09:15 *Registration*

09:15 *Welcome message*

### Session 1: Gait and behaviour analysis

09:30 **Invited lecture: Gait and soft biometrics**

Mark Nixon (*Univ. of Southampton, UK*)

10:30 **Human classification using gait features**

Elena Gianaria, Marco Grangetto, Maurizio Lucenteforte, Nello Balossino (*Univ. of Torino, Italy*)

10:55 **Using mutual information for multi-anchor tracking of human beings**

Silvio Barra (*Univ. of Cagliari, Italy*), Virginio Cantoni (*Univ. of Pavia, Italy*), Maria De Marsico (*Sapienza Univ. of Rome, Italy*), Daniel Riccio (*Univ. of Napoli Federico II, Italy*)

11:20  11:35

11:35 **A Framework for Fast Low-Power Multi-Sensor 3D Scene Capture and Reconstruction**

Aleksandra Chuchvara, Mihail Georgiev, Atanas Gotchev (*3D Media Group, Department of Signal Processing, Tampere University of Technology*)

### Session 2: Iris analysis

12:00 **Iris detection through watershed segmentation**

Alessio Ferone (*Univ. of Napoli Parthenope, Italy*), Maria Frucci (*CNR, Napoli, Italy*), Alfredo Petrosino (*Univ. of Napoli Parthenope, Italy*), Gabriella Sanniti di Baja (*CNR, Napoli, Italy*)

12:25 **Fast iris recognition on smartphone by means of spatial histograms**

Andrea F. Abate, Michele Nappi, Fabio Narducci, Stefano Ricciardi (*Univ. of Salerno Italy*)

12:50 **A contourlet transform based for features fusion in retina an iris multimodal biometric system**

Morteza Modarresi, Iman Sheikh Oveisi (*Islamic Azad Univ., Tehran, Iran*)

13:15  15:00

### Session 3: Speech recognition

15:00 **Invited lecture: From speaker recognition to forensic speaker recognition**

Andrzej Drygajlo (*Lausanne Fed. Inst. of Tech., Switzerland*)

16:00 **Noisy speech endpoint detection using MD feature**

Atanas Ouzounov (*IICT-BAS, Sofia, Bulgaria*)

16:25  16:40

### Session 4: 3D ear recognition

16:40 **Appearance-based 3D object approach to human ears recognition**

Dimo Dimov (*IICT-BAS, Sofia, Bulgaria*), Virginio Cantoni (*Univ. of Pavia, Italy*)

17:05 **3D ear analysis by an EGI representation**

Virginio Cantoni (*Univ. of Pavia, Italy*), Dimo Dimov (*IICT-BAS, Sofia, Bulgaria*), Atanas Nikolov (*IICT-BAS, Sofia, Bulgaria*)

19:30  cocktail party

## REGISTRATION:

academic 120,00 Euro

industrial 150,00 Euro

students 70,00 Euro.

**Early registration** (by June 16th, 2014) with a 25% reduction.

**VENUE.** The workshop takes place in the main campus of the Bulgarian Academy of Sciences, in Sofia, in the Hotel "Dom na Uchenia", 50, Shipchenski Prohod Blvd.

in the framework of ACoMIn  
Advanced Computing  
for Innovation

**ACoMIn**

in conjunction with the  
European COST Action - IC1106  
Integrating Biometrics and  
Forensics for the Digital Age



# 24 June 2014

## Session 5: Face and facial attributes analysis

09:30 **Invited lecture: Biometrics in Forensics science: challenges, lessons and new technologies**

Massimo Tistarelli (*Univ. of Sassari, Italy*)

10:30 **Facial expression classification using supervised descent method combined with PCA and SVM**

Agata Manolova, Nikolay Neshov, Stanislav Panev (*Technical University of Sofia, Bulgaria*)

10:55 **Human gaze tracking with an active multi-camera system**

Stanislav Panev, Agata Manolova, Ognian Boumbarov (*Technical University of Sofia, Bulgaria*)

11:20  11:40

## Session 6: Handwriting and signature recognition

11:40 **Effect of handwriting changes on the possibilities for computerized handwriting examination**

Dobrin Nestorov, Detelina Georgieva (*RIFSC – Mol, Bulgaria*)

12:05 **Neural network and kNN classifiers for on-line signature verification**

Desislava Boyadzieva, Georgi Gluhchev (*IICT-BAS, Sofia, Bulgaria*)

12:30  14:30

## Session 7: Multimodal and soft biometrics

14:30 **Invited lecture: People identification and tracking through fusion of face and gait features**

Chang-Tsun Li (*Univ. of Warwick, UK*)

15:30 **Pupil size as a biometric trait**

Nahumi Nugrahaningsih, Marco Porta (*Univ. of Pavia, Italy*)

15:55  16:10

16:10 **Analysing soft clothing biometrics for retrieval**

Emad Sami Jaha (*King Abdulaziz Univ., Jeddah, Saudi Arabia and Univ. of Southampton, United Kingdom*), Mark S. Nixon (*Univ. of Southampton, United Kingdom*)

16:35 **On the application of biometric techniques for locating damaged artworks**

Andreas Lanitis, Nicolas Tsapatsoulis, Anastasios Maronidis (*Cyprus Univ. of Technology*)

17:00 **Multifractal analysis of posturograms of young and elderly persons**

Peter Dojnow (*IGIC-BAS, Bulgaria*)

17:25 Conclusions

19:30  Farewell dinner

