

### **INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGIES BULGARIAN ACADEMY OF SCIENCES**



# IICT, BAS, Soffa, and our collaboration with CLVM

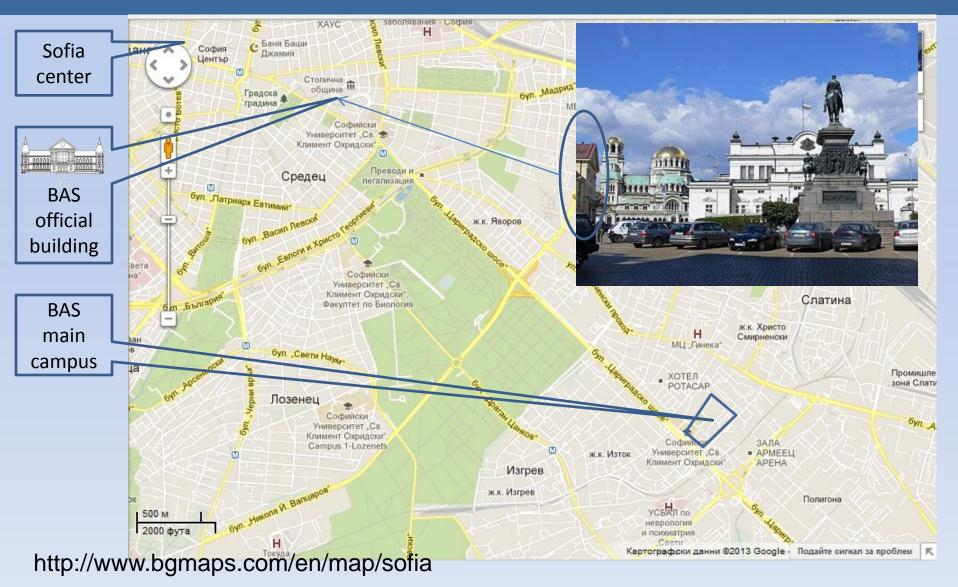
an introduction by D. Dimov

at Computer Vision and Multimedia Lab University of Pavia Nov. 15, 2016



## Sofia map: South-East part

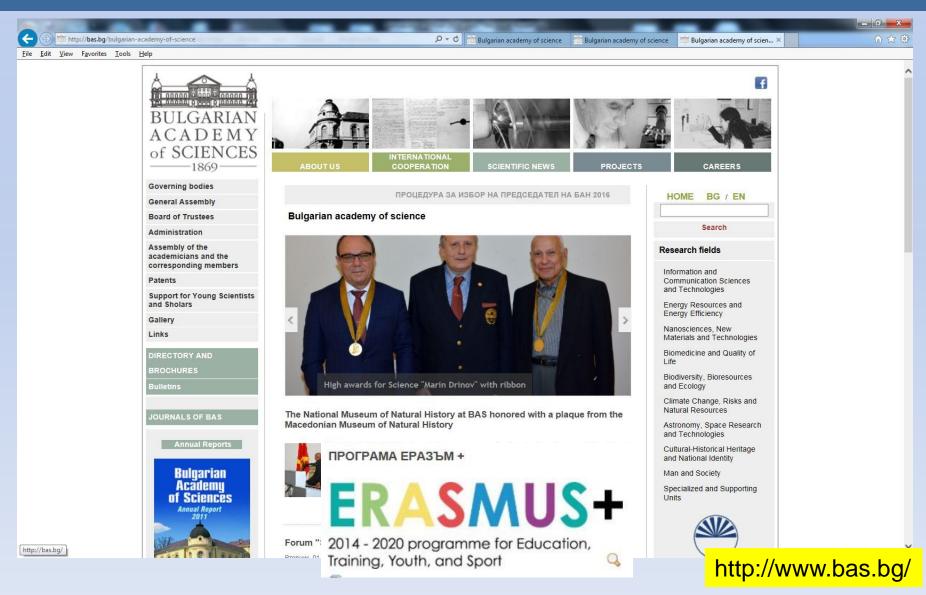
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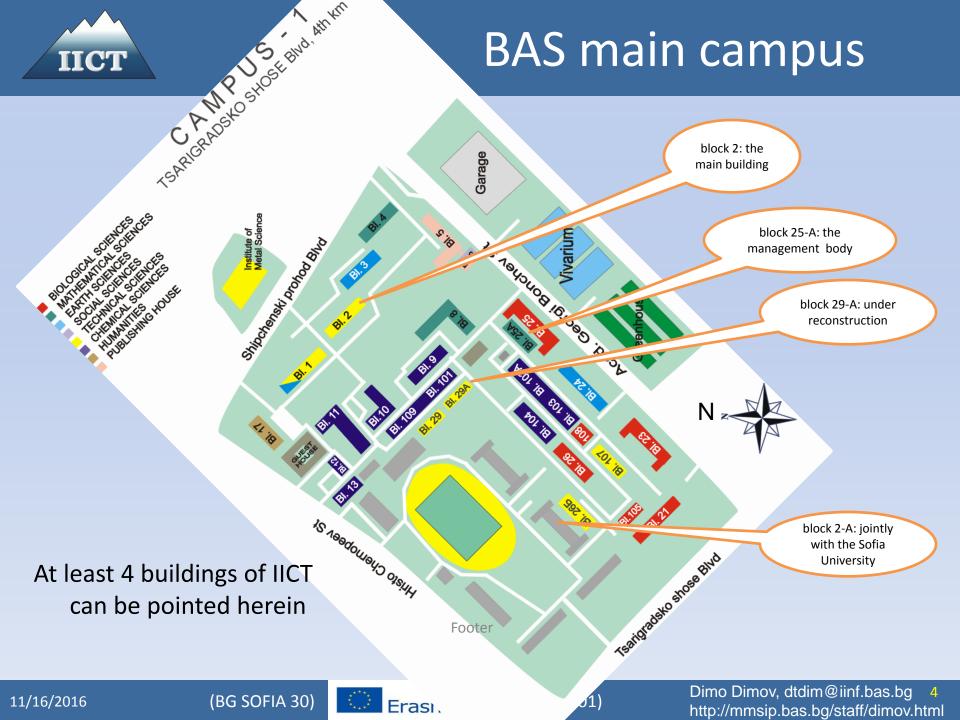




11/16/2016

### The official site (home page) of BAS







11/16/2016

### **IICT-BAS, the main building (block 2)**





#### INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

ACADEMY SCIENCES

http://www.iict.bas.bg/

HOME STRUCTURE SCIENTIFIC COUNCIL R & D PUBLISHING EDUCATION EVENTS LINKS



#### **IICT - BAS**

The Institute of Information and Communication Technologies (IICT) at the Bulgarian Academy of Sciences is founded on 1-st of July 2010 as a sucessor of Institute for Parallel Processing (IPP), Institute of Information Technologies (IIT) and Institute of Computer and Communication Systems (ICCS).



The research and development activities of Institute of Information and Communication Technologies covers the following directions:



- Computer Networks and Architectures
- Parallel Algorithms
- Scientific Computations
- Mathematical Methods for Sensor Data Processing
- Linguistic Modelling and Knowledge Processing
- Information Technologies for Security
- Grid Technologies and Applications
- Modelling and Optimization
- Information Processes and Decision Support Systems
- Intelligent systems
- **Embedded Intelligent Technologies**
- Communication Systems and Services
- \* Hierarchical Systems

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### IICT-BAS: management body & list of departments

#### MANAGEMENT BODY

DIRECTOR: PROF. D.SC. SVETOZAR MARGENOV DEPUTY DIRECTOR: ASSOC. PROF. KRASSIMIR GEORGIEV DEPUTY DIRECTOR: ASSOC. PROF. IVAN MUSTAKEROV

DEPUTY DIRECTOR: ASSOC. PROF. ZLATOLILIYA ILCHEVA SCIENTIFIC COUNCIL CHAIRMAN: PROF. D.SC. IVAN DIMOV

SCIENTIFIC SECRETARY: ASSOC. PROF. GENNADY AGRE

CHAIRMAN OF SCIENTISTS GENERAL ASSEMBLY: ASSOC. PROF. DIMO DIMOV



#### DEPARTMENTS

Computer Networks and Architectures

Head: Assoc. Prof. Dimitar Todorov

Scientific Computations

Head: Professor D.Sc. Svetozar Margenov

Linguistic Modelling

Head: Professor D.Sc. Galia Angelova

Grid Technologies and Applications

Head: Assoc. Prof. Emanouil Atanassov

Modelling and Optimization

Head: Assoc. Prof. Vladimir Monov

 Information Processes and Decision Support Systems

Head: Assoc. Prof. Ivan Mustakerov

Embedded Intelligent Technologies

Head: Assoc. Prof. Dimitar Karastoyanov

Hierarchical Systems

Head: Professor D.Sc. Todor Stoilov

Parallel Algorithms

Head: Professor D.Sc. Ivan Dimov

Mathematical Methods for Sensor Data Processing

Head: Assoc. Prof. Kiril Alexiev

Information Technologies for Security

Head: Assoc. Prof. Todor Tagarev

Technologies for Knowledge Management and Processing

Head: Assoc. Prof. Gennady Agre

Signal Processing and Pattern Recognition

Head: Assoc. Prof. Dimo Dimov

Intelligent Systems

Head: Assoc. Prof. Lyubka Doukovska

Communication Systems and Services

Head: Assoc. Prof. Rumen Andreev

#### ADMINISTRATIVE AND SPECIALIZED UNITS

- Inspection Body
- Coordination, Information and Publishing
- · Service and Support

- Financial & Accounting Unit
- Human Resources

For recent details, please visit <a href="http://www.iict.bas.bg">http://www.iict.bas.bg</a>





## the AComIn project of IICT

http://www.iict.bas.bg/acomin/



Employed incoming postdocs

Opened positions

11/16/2016

### **AComIn: Advanced Computing for Innovation**

Funding: FP7 Capacity Programme, Research Potential of Convergence Regions

Call: FP7-REGPOT-2012-2013-1

**Duration:** 42 months (actually 36, only Evaluation by external experts will run in months 37-42)

Grant Agreement: 316087 Starting Date: 1 October 2012

Host organisation: Institute of Information and Communication Technologies (IICT) Bulgarian

Academy of Sciences (BAS)

Coordinator: Prof. Galia Angelova, Dr.Sc.

#### Partners:

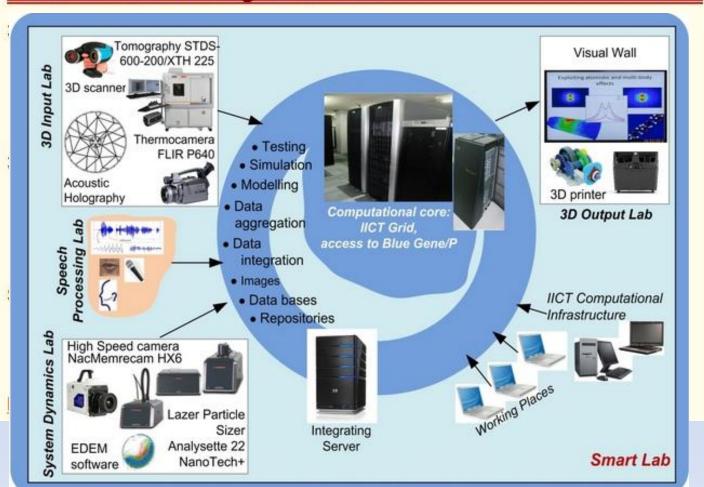
- Prof. Asen Asenov Gold Standard Simulations Ltd. & University of Glasgow, Device Modelling Group
- . Prof. Oleg Iliev Department of Flow and Material Simulation at the Fraunhofer Institute for Industrial Mathematics (ITWM)- Kaiserslautern
- Prof. John Domingue STI International
- Prof. Virginio Cantoni Computer Vision & Multimedia Lab CVML, University of Pavia
- · Prof. Ivan Kalaykov Centre for Applied Autonomous Sensor Systems, School of Science and Technology, Örebro University
- Prof. Markos Papageorgiou Dynamic Systems and Simulation Laboratory, Department of Production Engineering and Management, TU Crete
- Karina Angelieva Joint Innovation Centre, Bulgarian Academy of Sciences





### http://iict.bas.bg/acomin/smartLab.html

### AComin: Purchasing Smart Lab



For more details, please visit <a href="http://www.iict.bas.bg/acomin/smartLab.html">http://www.iict.bas.bg/acomin/smartLab.html</a>



## AComIn: the equipment...





## AComIn: the equipment...

### ZPrinter Z650



- 18,000 Scan points per second
- .002" Scan accuracy
- 2.85 lbs Weight
- .004" Scan point resolution
- 3 Cameras (2 scan, 1 color)
- 250 DPI Color scanning resolution



(I PAVIA 01)





## the (former) SP&PR department of IICT



#### PERMANENT STAFF

- Assoc. Prof. Dimo Dimov Image & Speech Processing and Recognition, Content Based Image/Object Retrieval, Rapid & Reliable Access to Multimedia Databases, Data Mining & Information Retrieval Systems, Astroinformatics.
- ▶ Assoc. Prof. Georgi Gluhtchev Image Processing, Pattern Recognition, Biometrics.
- Assoc. Prof. Vladimir Kyovtorov Signal and image processing, Statistical analysis, Communication and navigation techniques, Modelling and optimisation, Programming, Remote sensing, FPGA design.
- Assist. Prof. Atanas Ouzounov Speech processing, Speaker recognition, Neural networks.
- Assist. Prof. Valeri Ilchev Neural Networks, Pattern Recognition.
- PhD Student Atanas Nikolov Image Processing, Pattern Recognition, Stereovision.
- Elizaveta Karaatanassova Research assistance.

#### POST-DOCTORALS

- Desislava Boyadzhieva Pattern Recognition, Biometrics, Signature Based Identification.
- Alexander Marinov Image Processing & Pattern Recognition, Machine Learning.
- Nadezhda Zlateva Image Processing & Pattern Recognition, Machine Learning.
- Violeta Ivanova Research and creation of virtual educational environments.
- Svetoslav Nedkov Image Processing, Pattern Recognition, Emotion Recognition.

### ASSOCIATED STAFF

For more details, please visit <a href="http://www.iict.bas.bg/SPIR/index-en.html">http://www.iict.bas.bg/SPIR/index-en.html</a>





### the (current) MMSIP department of IICT



For more details, please visit <a href="http://mmsip.bas.bg/">http://mmsip.bas.bg/</a>





### **ETN FECTH**







## CompSysTech conferences



(I PAVIA 01)



# Int. workshop on Biometrics

**BIOMET, 2014** 

ORGANIZATION

PROGRAM

DATES

AWARD

ND D

VENUE

REGISTRATION

#### BIOMET 2014

International Workshop on Biometrics

in the framework of <u>AComIn</u> Advanced Computing



in conjunction with the

European COST Action - IC1106

Integrating Biometrics and

Forensics for the Digital Age



#### IMPORTANT DATES

Deadline extended!

Paper submission: 30 April 2014 18 May 2014

Notifications: 10 June 2014 Camera-ready due: 30 July 2014 Workshop: 23-24 June 2014

Venue: Sofia (Bulgaria)

Download the BIOMET 2014 Program as PDF.

Download the BIOMET 2014 Call for Papers as PDF.



PROCEEDINGS. Please visit this page to download the proceedings: Lecture Notes in Computer Science, Volume 8897 2014, Biometric Authentication, First International Workshop, BIOMET 2014, Sofia, Bulgaria, June 23-24, 2014. Revised Selected Papers. Editors: Virginio Cantoni, Dimo Dimov, Massimo Tistarelli. ISBN: 978-3-319-13385-0 (Print) 978-3-319-13385-7 (Online)

MOTIVATIONS AND AIMS. Biometrics (or biometric authentication) refers to the identification of humans by their characteristics or traits. Biometrics is used in computer science as a form of identification and access control and to identify individuals in groups that are under surveillance. BIOMET 2014 is intended to provide a forum to present current work and new ideas in this challenging field. It renovates and continues the Biometrics tradition (2007-2010) of the <a href="CompSysTech">CompSysTech</a> International Conferences, one of the longest running international conferences in computer science in Bulgaria that started in 2000. At the same time, BIOMET 2014 is primarily connected with the goals of the <a href="ICT-BAS">ICT-BAS's</a> AComIn project to disseminate recent advances in Biometrics among the research groups and companies in Bulgaria and Balkan countries as well.

SCOPE & CALL FOR PAPERS. The BIOMET 2014 scope of Call-for-papers includes, but is not limited to, the following subareas:

- · Face and facial attributes analysis
- · Fingerprints and palm authentication
- Forensic biometrics
- Gait and behavior analysis
- · Handwriting and signature recognition
- · Iris analysis and eye tracking
- Keystroke dynamics analysis
- · Multimodal biometrics
- · Odor and scent analysis
- Private biometrics
- Soft biometrics
- Voice recognition and speech analysis

FORMAT. The workshop will feature contributed talks as well as invited presentations. Moreover, feeling that the more informat the better, open and lively discussions and exchange of ideas are solicited. Some panels are allocated to stimulate questions and discussions. Companies are encouraged to participate with demos and posters.

#### ORGANIZATION

Program Chairs

Virginio Cantoni, University of Pavla - I Dimo Dimov, IICT-BAS, Sofia - BG http://vision.unipv.it/BIOMET-2014/





# Thank you

(let us continue if no "?" ©)