

# International Conference on Computer Systems and Technologies *CompSysTech'09*

On June 18 and 19 in University of Ruse hosted the tenth in turn **International Conference on Computer Systems and Technologies *CompSysTech'09***. Co-organizers of this significant scientific event are the State Agency for Information Technologies and Communications as well as the Academic Community of Computer Systems and Technologies, whose collective members are the departments of the same name from Sofia, Plovdiv, Varna, Gabrovo, Veliko Tarnovo and Ruse as well as the computer oriented institutes of the Bulgarian Academy of Sciences (BAS). Patrons of the conference are the European Commission through its Life-Long Learning Programme and Seventh Framework Programme, the Bulgarian Ministry of Education and Science and BAS. Only papers with three favourable reviews from members of the Programme Committee, which includes leading scientists from around the world, were allowed.

The Plenary Session was opened with a greeting address from the Mayor of Ruse Municipality - Dipl. Eng. Bozhidar Yotov and the Rector of the University of Ruse - Assoc. Prof. Hristo Beloev, DSc. The participants were also greeted by Academician Peter Kenderov.



The Plenary Session comprised of the following papers::

- **CompSysTech – Ten Years After the Beginning ...**  
**Boris Rachev**  
TECHNICAL UNIVERSITY OF VARNA - ACMBUL
- **IPv6: The Next Big Bail-Out. Will IPv6 Save the Internet?**  
**Latif Ladid**  
IPv6 FORUM
- **ICT-base for Scientific Research**  
**Kiril Boyanov, Dimitar Todorov**  
BULGARIAN ACADEMY OF SCIENCES



- **Polymorphic Architectures – from Media Processing to Supercomputing**  
**Georgi Kuzmanov**  
DELFT UNIVERSITY OF TECHNOLOGY

- Advanced Algorithms for Advanced Architectures  
**Vassil Alexandrov**  
THE UNIVERSITY OF READING
- A Broadband Access Program in Bulgaria  
**Plamen Vatchkov**  
STATE AGENCY FOR INFORMATION TECHNOLOGIES AND COMMUNICATIONS  
**Roumen Trifonov**  
COORDINATION COUNCIL FOR INFORMATION SOCIETY AT COUNCIL OF MINISTERS

After the Plenary Session the participants took a tour around the new building of the university, and had a social evening at the Riga restaurant.



The papers - a total of 100 - were allocated in seven sections::

- Computer Systems (Hardware) - 7;
- Computer Systems (Software) - 10;
- Application Aspects of CST (Computer Systems and Technologies) - 43;
- Educational Aspects of CST (Computer Systems and Technologies) - 17;
- Biometrics - 3;
- PhD Students' Section - 9;
- Students' Section - 5;
- High-School Students' Section - 3.

The Conference Programme also included a Workshop on Software, Services, Intelligent Content and Semantics, which comprised of 3 papers.

Scientists from 28 European countries participated in the conference with papers or as listeners.





Following nominations by the section chairpersons, the Programme Committee awarded a **"BEST PAPER"** crystal prize and honorary diplomas to the authors of the plenary reports as well as the following papers:

**Section 1 "COMPUTER SYSTEMS (Hardware)":**

- Outline of RISC-based Core for Multiprocessor on Chip Architecture Supporting Moving Threads  
**Jani Paakkulainen, Jari-Matti Mäkelä, Ville Leppänen, Martti Forsell**

**Section 2 "COMPUTER SYSTEMS (Software)":**

- Experiences with Embedding MPL Security Monitors into Java Programs  
**Jari-Matti Mäkelä, Ville Leppänen**

**Section 3-A "APPLICATION ASPECTS OF CST":**

- Application of contemporary measurement and analysis techniques to human cardiovascular system  
**Maja Bračič Lotrič, Aneta Stefanovska**
- A bottom approach of fusion of events in surveillance systems  
**Leon Rothkrantz, Zhenke Yang, Pascal Wiggers**
- Open Source Solution for a Workflow Execution Architecture  
**Martin Tsenov, Krasimir Trichkov, Simeon Tsvetanov**

**Section 3-B " APPLICATION ASPECTS OF CST":**

- Remote Identification and Information Processing with a Near Field Communication Compatible Mobile Phone  
**Raine Kelkka, Tommi Kallonen, Jouni Ikonen**
- A Nonlinear Programming Case Study to a Sensor Location Problem  
**Peter Gabor Szabo**
- Gustafson-Kessel Algorithm for Evolving Data Stream Clustering  
**Olga Georgieva, Dimitar Filev**

**Section 4 "EDUCATIONAL ASPECTS OF CST":**

- A Web Search Methodology for Different User Typologies  
**Marco Alfano, Biagio Lenzitti**
- An Approach to Development of Personalized E-learning Environment for Dyslexic Pupils' Acquisition of Reading Competence  
**Rumen Andreev, Valentina Terzieva, Petia Kademova-Katzarova**

**Section 5 "BIOMETRICS":**

- Multifactor Authentication based on keystroke dynamics  
**Daniela Chudá, Michal Ďurfina**

**Section 6 PhD STUDENTS:**

- Rule based GUI modification and adaptation  
**Plamen Paskalev**

### Section 7 STUDENTS:

- Microcomputer system for control of a minirobot  
**Authors: Deyan Levski, Simeon Ivanov, Tsvetomir Gocov**  
**Science head: Anelia Manukova, Anelia Ivanova**

### Section 8 HIGH-SCHOOL STUDENTS:

- PhotoBox  
**Kristiyan Srebrev**

### Workshop on Software, Services, Intelligent Content and Semantics:

- Construction of a Software Engine for Adaptation Control for the ADOPTA E-learning Platform  
**Boyan Bontchev, Dessislava Vassileva, Boryana Chavkova, Vladimir Mitev**

The prizes were provided by the Conference sponsors and were handed out by Academician P. Kenderov and Prof. T. Stoilov. The awarded papers will be offered for publishing in the "Automatica and Informatics".



The opinion of all participants and guests of the conference is that its main goal "Dissemination of results from theoretical and scientific research in the field of computer systems and technologies" has been widely achieved.

The proceedings have been published on paper and electronically on the conference Web site - <http://www.compsystech.org/>. All papers are in English, which is a premise for their popularization, referencing and quoting by other authors.

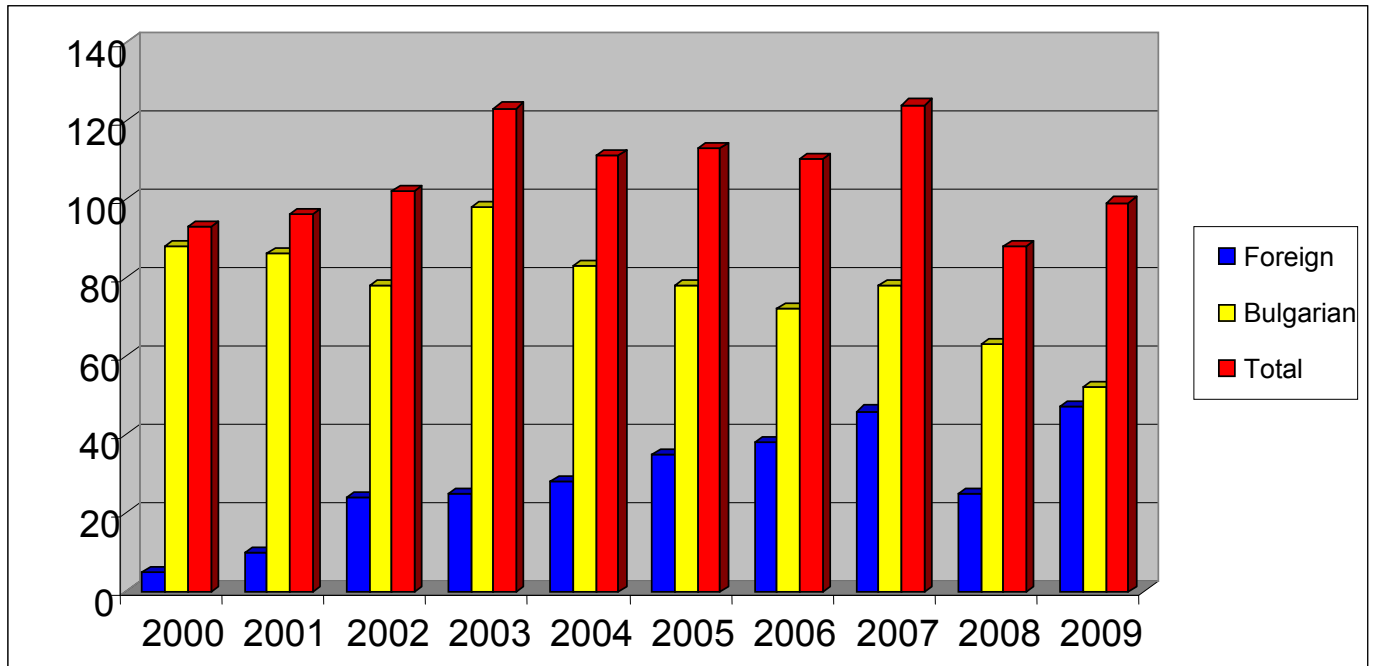
The papers are expected to be published in the digital library of the Association for Computing Machinery (ACM), as has already been done for two previous editions - in 2007 and 2008.

Nearly 30 organizations and companies from the IT business provided financial support. Some of them, such as EURORISC SYSTEMS Ltd - Varna, sponsored the conference for the tenth time. Significant support to the organizers was provided by the management of the Federation of Scientific and Technical Unions and the Union for Automation and Informatics, whose collective member is the Academic Community.

The closing session stressed on the fact that the **main goal** of the Programme and Organizing Committee is to maintain and constantly improve the reputation of the "CompSysTech" brand.

The organization of **CompSysTech'10** is already on the way. It will take place on June 17 and 18, 2010, in the city of Plovdiv. Information about this conference can be found on the

site at this address: <http://www.compsystech.org/>. Scientists from all European countries, members of the **European Thematic Network for Teaching, Research and Innovations in Computing Education**, are expected to join in the conference proceedings.



Number of published papers by year

Co-Chair of the Organizing Committee  
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