

◆ CONFERENCE OBJECTIVE

The *CompSysTech'08* International Conference is organized by **THE BULGARIAN ACADEMIC SOCIETY OF COMPUTER SYSTEMS AND INFORMATION TECHNOLOGIES** and its OBJECTIVE is to intensify the information exchange of results in theoretical research and practical developments in this field.

CompSysTech'08 is organized under the patronage of:

- EUROPEAN COMMISSION - Directorate-General for Education and Culture;
- Bulgarian State Agency for Information Technologies and Communications;
- Bulgarian Ministry of Education and Science;
- Bulgarian Academy of Sciences;
- Bulgarian Union of Automation and Informatics;
- Bulgarian Chapter of the Association for Computing Machinery – acmbul;
- Bulgarian Chapter of IEEE Computer Society;
- Bulgarian Chapter of IEEE Communications Society.

◆ INTERNATIONAL PROGRAMME COMMITTEE

• Honorary Co-Chairs:

Kiril Boyanov, Acad., DSc. – Bulgaria
Vassil Sgurev, Acad., DSc. – Bulgaria

• Co-Chairs:

Todor Stoilov, Prof., DSc – Bulgaria
Boris Rachev, Assoc. Prof., Ph.D. – Bulgaria

• Scientific Secretary:

Dimo Dimov, Assoc. Prof., Ph.D. – Bulgaria

• Members:

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Antanas Zilinskas (Lithuania)	Lidiya Georgieva (Bulgaria)
Antonio Mendes (Portugal)	Liudmil Dakovski (Bulgaria)
Atanas Gotchev (Finland)	Margarita Todorova (Bulgaria)
Avram Eskenazi (Bulgaria)	Mayer Aladjem (Israel)
Bozhan Zhechev (Bulgaria)	Melih Inal (Turkey)
Danail Dochev (Bulgaria)	Michael Vassilakopoulos (Greece)
Douglas Harms (USA)	Nicole Levy (France)
Evtim Peytchev (United Kingdom)	Nikolay Dokev (Bulgaria)
Georgi Todorov (Bulgaria)	Novruz Allahverdi (Turkey)
Georgi Totkov (Bulgaria)	Olegas Vasilecas (Lithuania)
Grisha Spasov (Bulgaria)	Peter Stanchev (USA)
Heinz-Dietrich Wuttke (Germany)	Radi Romansky (Bulgaria)
Iliya Georgiev (USA)	Rumen Nikolov (Bulgaria)
Ivan Jelinek (Czech Republic)	Stoicho Stoichev (Bulgaria)
Janusz Jabłonowski (Poland)	Timo Järvi (Finland)
Joris Mihaeli (Israel)	Tzvetomir Vassilev (Bulgaria)
Jukka Teuhola (Finland)	Ville Leppanen (Finland)
Juliana Peneva (Bulgaria)	Yannis Manolopoulos (Greece)
Karl Jones (United Kingdom)	

◆ NATIONAL ORGANIZING COMMITTEE**• Co-Chairs:****Plamen Vatchkov, Assoc. Prof., Ph.D. – Bulgaria****Angel Smrikarov, Assoc. Prof., Ph.D. – Bulgaria****Bozhan Zhechev, Assoc. Prof., Ph.D. – Bulgaria****• Secretary:**

Margarita Grigorova (Bulgaria)

• Members:

Emil Bojanov (Bulgaria)

Plamenka Borovska (Bulgaria)

Alexey Egorov (Bulgaria)

Alexander Dimov (Bulgaria)

Nayden Vasilev (Bulgaria)

Peter Antonov (Bulgaria)

Anatoliy Antonov (Bulgaria)

Margarita Todorova (Bulgaria)

Raycho Ilarionov (Bulgaria)

Stoyanka Smrikarova (Bulgaria)

Margarita Teodosieva (Bulgaria)

Nikolai Liutov (Bulgaria)

Maria Kasheva (Bulgaria)

Daniela Dureva (Bulgaria)

Galina Bogdanova (Bulgaria)

Boyanka Zhelyazova (Bulgaria)

Thursday 12th June 2008

09:00 – 14:30
In the foyer of the new library
Registration

15:00
New Library, Conference Room

OPENING

WELCOME

Chair: **Raycho Ilarionov**

PLENARY SESSION

Chair: **Todor Stoilov**
Co-chair: **Boris Rachev**

Computer Technologies for 3D Video Delivery
for Home and Mobile Entertainment

Atanas Gotchev

DEPARTMENT OF SIGNAL PROCESSING, TAMPERE UNIVERSITY OF TECHNOLOGY, FINLAND

E-GOVERNANCE ACT

Plamen Vachkov

STATE AGENCY OF INFORMATION TECHNOLOGIES AND COMMUNICATIONS

Roumen Trifonov

COORDINATION COUNCIL FOR INFORMATION SOCIETY AT COUNCIL OF MINISTERS

From eLearning to eUniversity

Roumen Nikolov

SOFIA UNIVERSITY

17:00
Sightseeing of the Technical University of Gabrovo

19:30
Social Evening in the Restaurant "BALKAN"

**TECHNICAL UNIVERSITY - GABROVO
4 H.DIMITAR STR.**

The Main Building



The New Library



Hotel "BALKAN"



SECTION 1

Computer Systems (Hardware)

Chair: **Angel Popov**

Scientific Secretary: **Hristo Kilifarev**

Friday 13th June 2008
09:00 – 09:30
Main building, Hall 3410

- 1.1. Formation of Attribute Spaces Using Wavelets in Automatic Classification of Explosives
Nikolai Shopov, Raycho Ilarionov, Ivan Simeonov, Hristo Kilifarev
- 1.2. Improvement and Optimization of an Embedded System for Short-Time Weather Forecasting
Hristo Kilifarev, Ivan Simeonov, Raycho Ilarionov

DISCUSSIONS

11:00 – 11:30
Coffee Break

CompSysTech'09

SECTION 2

Computer Systems (Software)

Chair: **Lyudmil Dakovski**

Co-Chair: **Stoyan Bonev**

Scientific Secretaries: **Dilyana Budakova**

SECTION 2 - SESSION 1

Friday 13th June 2008

09:00 – 11:00

Main building, Hall 3303

2. 1. Emotion Recognition Using Brain Activity
Robert Horlings, Leon J. M. Rothkrantz
2. 2. Address Block Segmentation Using Ensemble-Clustering Techniques
Leon J. M. Rothkrantz, Mustafa Idrissi
2. 3. An Adaptable FSA Simulator
Stoyan Bonev
2. 4. Computer Assisted Active Learning System Development for Critical Thinking and Flow
Dilek Karahoca, Adem Karahoca, Ali Güngör, Ilker Yengin
2. 5. Text Search in Document Images Based on Hausdorff Distance Measures
Andrey Andreev, Nikolay Kirov
2. 6. Innovative Concept of Open Source Enterprise Resource Planning (ERP) System
Svilen Valkov
2. 7. On Some Drawbacks of the PHP Platform
Nikolaj Cholakov
2. 8. Ontology-Based Examinational Students Work Retrieval
Dilyana Budakova, Lyudmil Dakovski

DISCUSSIONS

11:00 – 11:30

Coffee Break

SECTION 2 - SESSION 2

Friday 13th June 2008

11:30 – 13:30

Main building, Hall 3303

2. 9. Development of Applications with Service Oriented Architecture for Grid
Vladimir Dimitrov
2. 10. Architectural Framework for Dynamic Web-applications
Aleksandar Stoev, Aleksandar Dimov
2. 11. Adaptable Evaluation Approach for Software Architecture
Olfa Lamouchi, Amar Ramdan-Cherif, Nicole Lévy

- 2. 12. Comparison of Parallel Metaheuristics for Solving the TSP
Milena Lazarova, Plamenka Borovska
- 2. 13. Parallel Simulated Annealing for Solving the Room Assignment Problem on Shared and Distributed Memory Platforms
Milena Lazarova
- 2. 14. The Impact of Fragmentation over Streaming Video Traffic
Delyan Genkov
- 2. 15. Algorithm and Testing Software for Avoiding Fragmentation at the Application Layer
Delyan Genkov

DISCUSSIONS

13:30 – 14:30
Lunch

SECTION 3A

Application Aspects of Computer Systems and Technologies

Chairs: **Nadezhda Ruskova**
Co-Chairs: **Tsvetozar Georgiev**
Scientific Secretaries: **Valentin Mutkov**

SECTION 3A - SESSION 1

Friday 13th June 2008

09:00 – 11:00

Main building, Hall 3311

- 3A. 1. Function Based Identification of Affected Components in Cross-Domain Engineering
Jivka Ovtcharova, Milan Marinov
- 3A. 2. Mobile Application for Determination of Users' Text Entry Speed
Tsvetozar Georgiev, Evgeniya Georgieva
- 3A. 3. Time Synchronization of Multimedia Streams and Objects
Yordan Shterev
- 3A. 4. Performance of Multimedia Presentation with Branches by Synchronized Multimedia Integrated Language
Yordan Shterev
- 3A. 5. Partitioning Parallel Discrete Event Simulation
Hristo Valchanov, Nadezhda Ruskova, Dimitar Genov, Nedjalko Nikolov
- 3A. 6. Overheads Reduction of the Distributed Time Warp Simulation
Hristo Valchanov, Nadezhda Ruskova, Trifon Ruskov
- 3A. 7. Parameter Estimation for Finite Mixtures of Generalized Partial Credit Models
Dimitar Tsvetkov, Lyubomir Hristov
- 3A. 8. Modeling of Network Traffic With Self-Similar Process
Evgeniya Gospodinova, Mitko Gospodinov

DISCUSSIONS

11:00 – 11:30

Coffee Break

SECTION 3A - SESSION 2

Friday 13th June 2008

11:30 – 13:30

Main building, Hall 3311

- 3A. 9. Comparison of Bees Algorithm, Ant Colony Optimisation and Particle Swarm Optimisation for PID Controller Tuning
Karl O. Jones, André Bouffet

- 3A. 10. Complex Spread Spectrum in Uplink Line of Mobile Link Systems CDMA2000 and UMTS
Petar Petrov, Valentin Mutkov
- 3A. 11. An Algorithm for Complex Spread Spectrum in Downlink Line of Mobile Link Systems CDMA2000 and UMTS
Petar Petrov, Valentin Mutkov
- 3A. 12. Time-Delay Simulation Analysis of Local Controller Networks
Nikolay Kakanakov, Mitko Shopov, Grisha Spasov
- 3A. 13. ABC - Alphabetical Computer-Based Handwriting Investigation System
Dobrin Nestorov, Stefan Benchev, Stefan Bonchev, Georgi Gluhchev
- 3A. 14. Diagnosis Modelling of Urethral Obstructions Using Fuzzy Expert System
Kürşat Zühtüoğullari, Ismail Saritaş, Nihat Arıkan
- 3A. 15. The Design of Fuzzy Expert System for Emission Parameters
İsmail Saritas, Murat Ciniviz

DISCUSSIONS

13:30 – 14:30
Lunch

SECTION 3B

Application Aspects of Computer Systems and Technologies

Chairs: **Stoicho Stoichev**
Co-Chairs: **Tzvetomir Vassilev**
Scientific Secretaries: **Adriana Borodzhieva**

SECTION 3B - SESSION 1

Friday 13th June 2008

09:00 – 11:00

Main building, Hall 3312

- 3B. 1. Learning and Growth Strategy Metrics
Petko Ruskov, Yanka Todorova
- 3B. 2. Building the Academic Strategy Program
Petko Ruskov, Yanka Todorova
- 3B. 3. Objective Evaluation of Quality of Colour Reproduction in Current LCD Monitors
Dobromir Dochev
- 3B. 4. Comparison of Two Colour Calibration Techniques for Digital Photography
Tzvetomir Vassilev, Bernhard Spanlang
- 3B. 5. Determination of the Resistance Characteristics of Self-Compacting Concrete Samples by Artificial Neural Network
Mustafa Altin, Ismail Saritas, M. Tolga Cogurcu, Sakir Tasdemir, Mehmet Kamanli, M. Yasar Kaltakci
- 3B. 6. Prediction of Surface Roughness Using Artificial Neural Network in Lathe
Şakir Taşdemir, Süleyman Neşeli, Ismail Saritaş, Süleyman Yaldiz
- 3B. 7. Artificial Neural Network Design for Behaviours of Reinforced Concrete Column Under Axial Load and Comparison of Experimental Study
M. Tolga Cogurcu, Ismail Saritas, Mustafa Altin, M. Sami Donduren, Mehmet Kamanli, Mevlüt Yasar Kaltakci

DISCUSSIONS

11:00 – 11:30

Coffee Break

SECTION 3B - SESSION 2

Friday 13th June 2008

11:30 – 13:30

Main building, Hall 3312

- 3B. 8. Functional Analysis of Enterprise Resource Planning Systems
Todor Stoilov, Krasimira Stoilova
- 3B. 9. Main Components of a MPLS Recovery Approach
Svetlin Petrov

- 3B. 10. Developing a Profile of the User of Electronic Content
Jordan Stoyanov, Georgi Todorov
- 3B. 11. An Accelerating Technique for Population Based Algorithms
Vassil Guliashki
- 3B. 12. An algorithm for Studying Mental Tasks' Power Spectra Along the Time
Plamen Manoilov, Adriana Borodzhieva
- 3B. 13. Simulating the Operation of Feed-forward Convolutional Encoders and Viterbi Decoders Applied in Additive White Gaussian Noise Communication Channels
Adriana Borodzhieva, Plamen Manoilov
- 3B. 14. Designing Robust Copyright Protection for Software Products
Eugene Genov

DISCUSSIONS

13:30 – 14:30
Lunch

SECTION 4

Educational Aspects of Computer Systems and Technologies

Chairs: **Karl O. Jones**

Co-chairs: **Juliana Peneva**

Scientific Secretaries: **Vladimir Mateev**

SECTION 4 - SESSION 1

Friday 13th June 2008

09:00 – 11:00

Main building, Hall 32 - conference room

4. 1. Practical Issues for Academics Using the Turnitin Plagiarism Detection Software
Karl O. Jones
4. 2. E-learning Standardization – Bulgaria: Current Status, Issues and a Possible Solution
Georgi Totkov, Todor Uzunov, Rositsa Doneva, Nikolay Kasakliev
4. 3. A Software System for Speech Therapy and Voice Quality Improvement
Vania Sivakova, Todorka Terzieva, Georgi Totkov
4. 4. FPGA Platform Based Digital Design Education
Dmitri Mihhailov, Margus Kruus, Alexander Sudnitson
4. 5. An Adaptable Personal Learning Environment for e-Learning and e-Assessment
Steve Green, Lilyana Nacheva-Skopalik, Elaine Pearson
4. 6. Educational Process Model
Hristo Tujarov, Svetlana Avramova, Stefan Kalchev, Milena Stefanova
4. 7. An Educational Project for Master's Program in Computing
Juliana Peneva, Stanislav Ivanov, Petko Staynov

DISCUSSIONS

11:00 – 11:30

Coffee Break

SECTION 4 - SESSION 2

Friday 13th June 2008

11:30 – 13:30

Main building, Hall 32 - conference room

4. 8. Assessing Effectiveness of the Cognitive Abilities and Individual Differences on E-learning Portal Usability Evaluation
Dilek Karahoca, Adem Karahoca, Ali Güngör
4. 9. Application of Platform for Electronic Education on Securing Systems in Railroad Transport
Maria Hristova, Stanimir Stoyanov, Asya Stoyanova-Doycheva

- 4. 10. Virtual Instrument for Truth Table Construction of analytically-defined Boolean Functions
Vladimir Mateev
- 4. 11. Learning Styles Testing in Moodle
Daniela Dureva, Georgi Tuparov
- 4. 12. VEHICCLE: A Model of Web-based Language Learning
Anelly Kremenska
- 4. 13. Investigating Student Readiness for Computer Assisted Language Learning
Anelly Kremenska

DISCUSSIONS

13:30 – 14:30
Lunch

SECTION 5A

PhD Students Workshop

Chairs: **Vladimir Lazarov**,
Co-chairs: **Olegas Vasilecas**
Scientific Secretaries: **Ivaylo Penev**

SECTION 5A - SESSION 1

Friday 13th June 2008

09:00 – 11:00

Main building, Hall 3114

- 5A.1. Formal Transformation of Ontology Axioms to Rules
Diana Kalibatiene, Olegas Vasilecas
- 5A.2. Mission-critical Transfer and Ethernet-based MAN Networks – a Contemporary Snapshot
Vanya Topalova
- 5A.3. Deciding on the Architecture of the Concept Map Based Knowledge Assessment System
Romans Lukashenko, Marks Vilkelis, Alla Anohina
- 5A.4. Implementation of Monte Carlo Simulation in a Distributed Computing Environment
Ivaylo Penev
- 5A.5. Ontology Based CBR Architecture For Knowledge Management in BULCHINO Catalogue
Nadezhda Govedarova, Stanimir Stoyanov, Ivan Popchev
- 5A.6. Testing and Analysis of an Algorithm for Protein Structure Comparison
Dobrinka Petrova
- 5A.7. Integration of IT Strategy and Enterprise Architecture Models
Ivaylo Velitchkov

DISCUSSIONS

11:00 – 11:30

Coffee Break

SECTION 5A - SESSION 2

Friday 13th June 2008

11:30 – 13:30

Main building, Hall 3114

- 5A.8. Determination of Body Measurements of a Cow by Image Analysis
Şakir Taşdemir, Murat Yakar, Abdullah Ürkmez, Şeref Inal
- 5A.9. Combining Actual Trends in Software Systems for Business Management
Anca Andreescu, Marinela Mircea
- 5A.10. Semantic User Profile Acquisition and Sharing
Tomáš Kadlec, Ivan Jelínek

5A.11. An Investigation on the Approaches for Version Control Systems

Vladimir Jotov

5A.12. Simulation Models of Two-Phase Locking of Distributed Transactions

Svetlana Vasileva, Aleksandar Milev

5A.13. Data Protection Utilizing Trusted Platform Module

Elior Vila, Plamenka Borovska

DISCUSSIONS

13:30 – 14:30

Lunch

SECTION 5B

PhD Students Workshop

Chairs: **Georgi Todorov**
Co-chairs: **Georgi Totkov**
Scientific Secretaries: **Orlin Tomov**

Friday 13th June 2008
09:00 – 11:00
Main building, Hall 3116

- 5B.1. Extended IMS Specification for Accumulative Test System
Mariana Sokolova, George Totkov
- 5B.2. Mathematics and Programming: Some studies
Ana Pacheco, Anabela Gomes, Joana Henriques, Ana Maria de Almeida, António José Mendes
- 5B.3. Adaptive Model for User Knowledge in the E-Learning System
Todorka Glushkova
- 5B.4. Virtual Labs with Remote Access to a Real Hardware Equipment in the Computer Systems Education
Orlin Tomov
- 5B.5. Team Work in Software Development Student Projects
Anca Andreescu, Iulian Intorsureanu, Adina Uta, Rodica Mihalca
- 5B.6. Using Semantic Web Technologies for Information Adaptation
Vojtech Jirkovsky, Ivan Jelinek

DISCUSSIONS

11:00 – 11:30
Coffee Break

CompSysTech'09

SECTION 6

Students Workshop

Chair: **Petar Kenderov**
Co-chair: **Anelia Ivanova**
Scientific Secretaries: **Galina Ivanova**

Friday 13th June 2008
09:00 – 10:00
New Library, Conference Room

- 6.1. An Example of Distributed Mobile System for Monitoring
Velislava Spasova
- 6.2. A Conceptual Model of Scientific Council WEB Site
Marina Petkova, Anelia Ivanova, Angel Smrikarov
- 6.3. A Training Model of a CMOS at INEX
Ognyan Zahariev

DISCUSSIONS

SECTION 7

High-School Students Workshop

Chair: **Petar Kenderov**
Co-chair: **Anelia Ivanova**
Scientific Secretaries: **Galina Ivanova**

Friday 13th June 2008
10:00 – 11:00
New Library, Conference Room

- 7.1. HiMiX – A Computer Based Virtual Chemical Laboratory
Vladislav Trifonov, Nikolay Suknyarov
- 7.2. Virtual Model of EIM ES 1020B from Computer Museum of Mathematics and Informatics Faculty in Shumen University
Katerina Velcheva, Violeta Velcheva, Stanimir Stanev
- 7.3. Pascal / C++ Developer's Handbook
Krasimir Asenov, Alexander Kolarski, Martin Kirilov

DISCUSSIONS

11:00 – 11:30
Coffee Break

CompSysTech'09

WORKSHOP

v(HDL) - Hardware Description Language as a Tool for Creating of Hardware

Chair: **Philip Philipov**
Co-chair: **Nikolay Kostadinov**
Scientific Secretaries: **Ivan Panajotov**

Friday 13th June 2008
09:30 – 10:30
Main building, Hall 3410

Liaison between SoP and v(HDL)
Koljo Onkov, Ivan Evgeniev

Teaching VHDL for Students in Computing at the University of Rousse
Anelia Ivanova, Nikolay Kostadinov, Galina Ivanova

DISCUSSIONS

11:00 – 11:30
Coffee Break

CompSysTech'09

WORKSHOP

**FP7 Project SISTER:
Strengthening the IST Research Capacity of Sofia University.
Opportunities for collaboration.**

Chair: **Roumen Nikolov**
Co-chair: **Petko Ruskov**
Scientific Secretary: **Aleksandar Dimov**

Friday 13th June 2008
10:30 – 11:30
Main building, Hall 3410

Presentation of SISTER Project
Roumen Nikolov

Strengthening the Capacity in Software and Services and Intelligent Content and Semantics
Aleksandar Dimov

Strengthening the Capacity in Interdisciplinary Skills of the Staff and the Technology Environment
Petko Ruskov

DISCUSSIONS

13:30 – 14:30
Lunch

CompSysTech'09

**Friday 13th June 2008
15:00
New Library, Conference Room**

**The CHAIRS
of the PROGRAMME COMMITTEE and the ORGANIZING COMMITTEE
will bestow
a CRYSTAL PRIZE
to the authors of the best papers.**



**Friday 13th June 2008
15:30
New Library, Conference Room**

**Meeting
of the PROGRAMME COMMITTEE and ORGANIZING COMMITTEE
and the chairs of each sections
of the CompSysTech'08**

Friday 13th June 2008

**17:00
EXCURSION
to the city of Tryavna**

**19:30
Dinner in the brewery of Tryavna
Back to Gabrovo**

Gabrovo



Tryavna

