TECHNICAL UNIVERSITY OF GABROVO

CAN
UNION OF AUTOMATION
& INFORMATICS

IEEE
BULGARIA
SECTION

UNION OF SCIENTISTS IN BULGARIA
BRANCH GABROVO

FNTS
1885

INTERNATIONAL
SCIENTIFIC CONFERENCE

UNITECH '14 GABROVO

P R O G R A M

21 - 22 NOVEMBER 2014
GABROVO

International Scientific Conference UNITECH'14 is organized by the Technical University of Gabrovo with the assistance of regional business establishments and companies. The conference is a forum at which traditionally every year at the end of November lecturers and research workers from home and abroad meet to promote the Development of Science and Education.

ORGANIZING COMMITTEE

Chairman: Assoc. Prof. Iliya Zhelezarov, Ph.D.
Vice Rector in charge of Research and Development
Members: Prof. Jordan Maximov, D.Sc.
Assoc. Prof. Mincho Simeonov, Ph.D.
Assoc. Prof. Tsvetelina Gankova, Ph.D.
Assoc. Prof. Daniela Dimova, Ph.D.
Assoc. Prof. Dragomir Chantov, Ph.D.
Technical Assistant:
Petya Peneva, MA

PROGRAM COMMITTEE

Chairman: Prof. Raycho Ilarionov, D.Sc.
Technical University of Gabrovo, Bulgaria
Members:
Acad. Chavdar Rumenin, Bulgaria
Acad. Dragoljub Mirjanić, Rep. Srpska, B & H
Prof. Lothar Otto, Ph.D., Germany
Prof. Walter Maier, Ph.D., Germany
Prof. D.H.C. Helmut Hopp, Ph.D., Germany
Prof. Jan Brinks, Ph.D., Netherlands
Prof. D.H.C. Branimir Djordjević, Ph.D., Serbia
Prof. Dr. Petar Maric, Serbia
Prof. D.H.C. Yuriyi Kuznetsov, D.Sc., Ukraine
Prof. Elena Kovalenko, Ph.D., Ukraine
Prof. Igor Sazonov, D.Sc., Belarus
Prof. D.H.C. Nikolay Ganev, Ph.D., Czech Republic
Prof. Toshko Nenov, Ph.D., Bulgaria
Prof. Ventsislav Zimparov, D.Sc., Bulgaria
Prof. Stoyan Kapralov, D.Sc., Bulgaria
Prof. Rumen Daskalov, D.Sc., Bulgaria
Assoc. Prof. Petar Petrov, Ph.D., Bulgaria

***UNITECH'14 will be held on 21 and 22 November 2014
at the Technical University of Gabrovo***

WORKING PROGRAM
OF THE SCIENTIFIC CONFERENCE

20th November 2014, Thursday

14.00 – 17.00 h   Registration, Rectorat building

21st November 2014, Friday

08.00 – 10.30 h   Registration, Rectorat building
10.30 – 11.00 h   Opening ceremony – Library building, Conference hall
11.00 – 12.00 h   *The Role of Informatics in a Modern Health Care System* - a plenary report by Karl P. Pfeiffer **-** FH JOANNEUM – University of Applied Sciences
Inductive power transfer charging station for static and dynamic charge of electrical vehicles – a plenary report by Prof.Raycho Ilarionov, Assoc. Prof. Nikolay Madzharov and Mag. Eng. Anton Tonchev, Technical University of Gabrovo
12.00 – 13.00 h   Lunch
13.00 – 18.00 h   Thematic sessions
   ➢ Electrical Engineering
   ➢ Electronics and Sensors
   ➢ Automation
   ➢ Chemistry and Ecology
   ➢ Communication Engineering and Technologies
   ➢ Computer Systems
   ➢ Computer Technologies
   ➢ Mathematics and Informatics
   ➢ Design of Machines and Instruments
   ➢ Technologies in Mechanical Engineering
   ➢ Technologies in Textile Production
   ➢ Mechatronics, Metrology and Quality Management
   ➢ Hydraulics, Pneumatics and Heat Engineering
   ➢ Economics and Finance
   ➢ Organization and Management
   ➢ Social Sciences and Humanities
   ➢ Educational Technologies
   ➢ Physics

15.00 – 15.30 h   Coffee break
14.00 h   Round table: Closing conference in the agenda of the Project "*Technical University of Gabrovo curricula updating in conformity with business demands"*, Library building, Conference hall
15.30 h   Round table: *Education and Active Ageing,* Irena Rashkova   and Tsvetelina Petrova, Department for Language and Specialized TrainingTechnical University of Gabrovo, Integral Building, 3rd floor, Hall 1324
19.00 h   Formal dinnerRestaurant Balkan Hotel

22th November 2014, Saturday

09.00 – 12.00 h   Thematic sessions

MATHEMATICS AND INFORMATICS

Chairmen: Assoc. Prof. Milena Racheva, D.Sc., Sen. Assist. Prof. Mariyan Balev, Ph.D.
Building: № 1, Hall 1344
Beginning: 13.00 h.

Analytical hierarchical process (AHP) method application in the process of selection and evaluation

Tatjana Atanasova–Pachemska, Martin Lapevski, Riste Timovski
Goce Delcev University in Stip, Republic of Macedonia

Solving generalized algebraic riccati in scilab

I.Ivanov, I. Ivanov
Konstantin Preslavsky University of Shumen, Bulgaria

New large (n,r) - ARCS in PG (2,37)

Rumen Daskalov, Elena Metodieva
Technical University of Gabrovo, Bulgaria

Binary cyclic codes of length 105

Rumen Daskalov, Elena Metodieva
Technical University of Gabrovo, Bulgaria

Modelling processes throught general networks

M. Vankova
Technical University of Gabrovo, Bulgaria

An example of general networks

M. Vankova
Technical University of Gabrovo, Bulgaria

Mathematics behind waterfalltree

Iliya Tronkov
Technical University of Gabrovo, STS Soft SC, Bulgaria

Waterfalltree implementation details

Iliya Tronkov
Technical University of Gabrovo, STS Soft SC, Bulgaria

New bounds for superimposed codes

M.Manev
Technical University of Gabrovo, Bulgaria

Application of cross and dot product in computational geometry in the plane

M.Manev
Technical University of Gabrovo, Bulgaria

The first fundamental theorem of welfare economics mathematical model

T. Meteva

Konstantin Preslavsky University of Shumen, Bulgaria