

# **- ICAS 2017 -** **International Conference** **on Applied Sciences**



**Organized by:**

**University Politehnica Timisoara**



**and**

**University of Banja Luka**



**in cooperation with**

**Academy of Romanian Scientists**

**Academy of Sciences Republic of Srpska**

**Academy of Technical Sciences of Romania - Timisoara Branch**

**and**

**General Association of Romanian Engineers - Hunedoara Branch**

**May 10-12, 2017**  
**Hunedoara, ROMANIA**

in cooperation with

Academy of Romanian Scientists  
Academy of Sciences Republic of Srpska  
Academy of Technical Sciences of Romania - Timisoara Branch  
and  
General Association of Romanian Engineers - Hunedoara Branch

• ICAS 2017 •

# International Conference on Applied Sciences



# Program

Hunedoara, Romania, May 10-12, 2017

<http://www.fih.upt.ro/v4/ICAS2017/index.htm>

Event supported by:



HUNEDOARA COUNTY  
COUNCIL



ArcelorMittal





# International conference on Applied Sciences

## Organizing Committee

### Co-Presidents

Mataruga Milan, University of Banja Luka  
Serban Viorel-Aurel, University Politehnica Timisoara

### Honorary Co-Presidents

Borko Durić, President of the Chamber of Commerce  
Harau Carmen, Parliament of Romania - Senat  
Ilca Ioan, Academy of Technical Sciences of Romania  
Mirjanic Dragoljub, Academy of Sciences Republic of Srpska  
Petrescu Doru Ion, C.E.O. Arcelor Mittal S.A.  
Predrag Damjanovic, Director of Pedagogical Institute of the Republic of Srpska  
Radojičić Igor, Mayor of Banja Luka  
Yang Xi, S C Eurosport DHS S A

### Vice-Presidents

Knezevic Darko, University of Banja Luka  
Panoiu Caius, University Politehnica Timisoara

### Coordinators

Latinovic Tihomir, University of Banja Luka  
Lemle Ludovic Dan, University Politehnica Timisoara

### Members

Abrudean Cristian, University Politehnica Timisoara  
Alexa Vasile, University Politehnica Timisoara  
Ardelean Marius, University Politehnica Timisoara  
Dinis Corina, University Politehnica Timisoara  
Gherman Lucian, University Politehnica Timisoara  
Ratiu Sorin, University Politehnica Timisoara  
Socalici Ana, University Politehnica Timisoara  
Tirian Ovidiu, University Politehnica Timisoara

### Secretariat

Berdie Adela, University Politehnica Timisoara  
Josan Ana, University Politehnica Timisoara  
Rob Raluca, University Politehnica Timisoara

### Translator

Gaianu Oana, University Politehnica Timisoara



# International conference on Applied Sciences

## Scientific Committee

### Chairman

Lemle Ludovic Dan, University Politehnica Timisoara

### Program Chairman

Kiss Imre, University Politehnica Timisoara

### Vice-Chairmen

Barz Cristian, Technical University of Cluj Napoca

Gherman Laurian, "Henri Coanda" Air Force Academy of Brasov

Jiang Yiwen, Military Economics Academy of Wuhan

Latinovic Tihomir, University of Banja Luka

### Chairmen of Materials Science Session

Ardelean Erika, University Politehnica Timisoara

Jovanovic Dragana, University of Banja Luka

### Chairmen of Mechatronics Session

Bordeasu Ilare, University Politehnica Timisoara

Rogic Miroslav, University of Banja Luka

### Chairmen of Electrical Engineering Session

Blanusa Branko, University of Banja Luka

Popa Gabriel, University Politehnica Timisoara

### Chairmen of Computers Engineering Session

Dejanovic Ratko, University of Banja Luka

Panoiu Manuela, University Politehnica Timisoara

### Chairmen of Fundamental Sciences Session

Bistriian Diana, University Politehnica Timisoara

Romano Daniel, University of Banja Luka

### Chairmen of Video-conference Session

Sikanic Goran, University of Banja Luka

Muscalagiu Ionel, University Politehnica Timisoara

## Members

Borojević Stevo, University of Banja Luka  
Cioaca Catalin, "Henri Coanda" Air Force Academy of Brasov  
Constantinescu George, "Henri Coanda" Air Force Academy of Brasov  
Cosma Marius, Technical University of Cluj Napoca  
Erdei Zoltan, Technical University of Cluj Napoca  
Fang Zhengqi, Military Economics Academy of Wuhan  
Gvero Petar, University of Banja Luka  
Guo Zhonghou, Military Economics Academy of Wuhan  
Heput Teodor, University Politehnica Timisoara  
Lesenciuc Adrian, "Henri Coanda" Air Force Academy of Brasov  
Li Xuewu, Military Economics Academy of Wuhan  
Luculescu Doru, "Henri Coanda" Air Force Academy of Brasov  
Lung Claudiu, Technical University of Cluj Napoca  
Mandru Dan, Technical University of Cluj Napoca  
Milašinović Aleksandar, University of Banja Luka  
Miron Liliana Ecaterina, "Henri Coanda" Air Force Academy of Brasov  
Osaci Mihaela, University Politehnica Timisoara  
Pinca-Bretotean Camelia, University Politehnica Timisoara  
Pop Sitar Petrica, Technical University of Cluj Napoca  
Rusu-Anghel Stela, University Politehnica Timisoara  
Stoychitch Mihaylo, University of Banja Luka  
Tanasić Zorana, University of Banja Luka  
Vilceanu Lucia, University Politehnica Timisoara  
Zhang Lijun, Military Economics Academy of Wuhan  
Zhang Tao, Military Economics Academy of Wuhan

## Responsible with Media Relations

Birtok-Băneasă Corneliu, University Politehnica Timisoara



**International conference  
on Applied Sciences**

## Secretary office

5, REVOLUTIEI,

331128, HUNEDOARA

e-mail: [icas\\_conference@yahoo.ro](mailto:icas_conference@yahoo.ro)



## May 10, 2017

15:00-20:00

Registration of participants

20:00-24:00

Welcome Dinner

## May 11, 2017

8:00-9:00

Registration of participants (Faculty of Engineering)

9:00-9:30

**OPENING CEREMONY (Room Aula Magna)**  
**Chairman: Ludovic Dan LEMLE**

## Members of Presidium:

**Mile VASIC**

Ambassador of Bosnia and Herzegovina in Romania

**Predrag DAMJANOVIC**

Director of Pedagogical Institute of the Republic of Srpska

**Radenko KOMLJENOVIC**

Head of Department of Economy of the City of Banja Luka

**Dragica RISTIC**

Director of the Chamber of Commerce and Industry of Republic of Srpska

**Strain POSAVLJAK**

Vice-Rector of the University of Banja Luka

**Carmen HĂRĂU**

Parliament of Romania - Senat

**Aurel-Viorel ȘERBAN**

Rector of the University Politehnica Timisoara

**Caius PĂNOIU**

Dean of the Engineering Faculty of Hunedoara

**Dan BOBOUȚANU**

Mayor of Hunedoara

**Mircea Flaviu BOBORA**

President of the Hunedoara County Council

**Ion Doru PETRESCU**

C.E.O. ArcelorMittal S. A.

**Yang XI**

S. C. Eurosport DHS S. A.

9:30-9:45

Group Photo

9:45-10:00

Coffee Break

May 11, 2017

10:00-13:00

**PLENARY SESSION (Room Aula Magna)**  
 Chairmen: Tihomir LATINOVIC and Imre KISS

10:00-10:30

**Mohsen RAZZAGHI**  
 Mississippi State University

10:30-11:00

**Miroslav PRSA**  
 University of Novi Sad

11:00-11:30

**Bogdan LUNGU**  
 Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering

11:30-12:00

**Mircea Octavian POPOVICIU**  
 Academy of Romanian Scientists

12:00-12:30

**Ioan ILCA**  
 Academy of Technical Sciences of Romania

12:30-14:00

Lunch

14:00-17:00

PARALLEL SESSIONS

17:00-17:15

Coffee Break

17:15-20:00

PARALLEL SESSIONS

May 11, 2017

14:00-20:00

**MECHATRONICS Session (Room FI-10)**  
**Chairmen: Ilare BORDEAȘU and Miroslav ROGIC**

	<p><b>Title:</b> Instantaneous flywheel torque of IC engine grey-box identification  <b>Authors:</b> A Milašinović, D Knežević, Z Milovanović and J Škundrić  <b>Speaker:</b> A Milašinović</p>
	<p><b>Title:</b> 3C-SiC: A promising material for GHz resonators in out-of-plane resonance mode  <b>Authors:</b> M Zarog  <b>Speaker:</b> M Zarog</p>
	<p><b>Title:</b> Analysis of time in establishing synchronization radio communication system with an expanded spectrum conditions for communication with mobile robots  <b>Authors:</b> T S Latinovic, S B Kalabic, C Barz, P P Pop and A Pop-Vădean  <b>Speaker:</b> T S Latinovic</p>
	<p><b>Title:</b> Appreciations regarding use of the Rz roughness parameters in evaluating materials behavior to cavitation erosion  <b>Authors:</b> I Bordeasu, M O Popoviciu, C Gherea, L M Micu and L D Pirvulescu  <b>Speaker:</b> I Bordeasu</p>
	<p><b>Title:</b> Generate stepper motor linear speed profile in real time  <b>Authors:</b> M Stoychitch  <b>Speaker:</b> M Stoychitch</p>
	<p><b>Title:</b> Finite element method analysis of the speed reducer housings  <b>Authors:</b> I Zs Miklos, C C Miklos, C I Alic and S Rațiu  <b>Speaker:</b> I Zs Miklos</p>
	<p><b>Title:</b> Comparative study of oxihydrogen injection in turbocharged compression ignition engines  <b>Authors:</b> L Barna and D Lelea  <b>Speaker:</b> L Barna</p>
	<p><b>Title:</b> Research on integration in mechatronics natural patterns using transdisciplinary approaches  <b>Authors:</b> P P Pop, A L Pop-Vădean, C Barz, T Latinovic and A Pintescu  <b>Speaker:</b> P P Pop</p>
	<p><b>Title:</b> Three different types of induction vibration energy devices and their applications  <b>Authors:</b> A L Pop-Vădean, P P Pop, C Barz, T Latinovic and A Pintescu  <b>Speaker:</b> A L Pop-Vădean</p>
	<p><b>Title:</b> Particular mechanism for continuously varying the compression ratio for an internal combustion engine  <b>Authors:</b> S Rațiu, R Cătălinoiu, V Alexa, I Zs Miklos and V Cioată  <b>Speaker:</b> S Rațiu</p>
	<p><b>Title:</b> Minimal algorithm for running an internal combustion engine  <b>Authors:</b> V Stoica, A Borborean, A Ciocan and C Manciu  <b>Speaker:</b> V Stoica</p>
	<p><b>Title:</b> Test bench for common rail injection system behavior analysis  <b>Authors:</b> R Maruta and V Stoica  <b>Speaker:</b> V Stoica</p>
	<p><b>Title:</b> Experimental test bench for ICE management algorithm testing  <b>Authors:</b> A Borborean, A Ciocan and V Stoica  <b>Speaker:</b> A Borborean</p>
17:00-17:15	Coffee Break



	<p><b>Title:</b> An evolutionary sensor approach for self-organizing production chains  <b>Authors:</b> E V Gillich, M Mocan, I C Mituletu and G R Gillich  <b>Speaker:</b> G R Gillich</p>
	<p><b>Title:</b> Decoupling the structure from the ground motion during earthquakes by employing friction pendulums  <b>Authors:</b> G R Gillich, V Iancu, N Gillich, C P Chioncel and C Hatiegan  <b>Speaker:</b> G R Gillich</p>
	<p><b>Title:</b> The behaviour of a vehicle's suspension system on dynamic testing conditions  <b>Authors:</b> L Mihon, N Lontis and S Deac  <b>Speaker:</b> L Mihon</p>
	<p><b>Title:</b> Powertrain simulation for a hybrid/electric small car  <b>Authors:</b> L Mihon, N Lontis and S Deac  <b>Speaker:</b> L Mihon</p>
	<p><b>Title:</b> Determination of transverse critical speeds of a rotor by vibroacustical signal analysis  <b>Authors:</b> I Crăstiu, D Simoiu and L Bereteu  <b>Speaker:</b> I Crăstiu</p>
	<p><b>Title:</b> Modeling and simulation of a vehicle in frontal collision  <b>Authors:</b> S Deac, A Perescu and L Bereteu  <b>Speaker:</b> S Deac</p>
	<p><b>Title:</b> Innovation-Prototype. Making hydraulic and/or pneumatic plates using 3D printing technology  <b>Authors:</b> V Alexa, S Rațiu, I Kiss, V Cioată and M Rackov  <b>Speaker:</b> V Alexa</p>
	<p><b>Title:</b> Social Humanoid Robot SARA: Development of the wrist mechanism  <b>Authors:</b> M Penčić, M Rackov, M Čavić, I Kiss and V Cioata  <b>Speaker:</b> M Penčić</p>
	<p><b>Title:</b> Analysis of whole-body vibration on rheological models for tissues  <b>Authors:</b> A Neamțu-Popescu, Gh Drăganescu and L Bereteu  <b>Speaker:</b> A Neamțu-Popescu</p>
	<p><b>Title:</b> Determination of some mechanical characteristics of surface coatings from analysis of signals obtained by impulse excitation  <b>Authors:</b> E Nyaguly, D Simoiu, Gh Drăgănescu and L Bereteu  <b>Speaker:</b> E Nyaguly</p>
	<p><b>Title:</b> Study of the influence of the cutting temperature on the magnitude of the contact forces in the machining device  <b>Authors:</b> V G Cioată, I Kiss, V Alexa, S Rațiu and M Rackov  <b>Speaker:</b> V G Cioata</p>
	<p><b>Title:</b> Adjustment of gripping force by optical systems  <b>Authors:</b> C K Jalba and C Barz  <b>Speaker:</b> K Jalba</p>

20:00-24:00

Conference Dinner



# International Conference on Applied Sciences

May 11, 2017

14:00-20:00

**MATERIALS SCIENCE Session (Room FI-8)**  
**Chairmen: Erika ARDELEAN and Dragana JOVANOVIĆ**

	<p><b>Title:</b> XAFS study of YxSm1-xBO3 oxide  <b>Authors:</b> O M Ozkendir, H Gundogmus and C Saiyasombat  <b>Speaker:</b> O M Ozkendir</p>
	<p><b>Title:</b> Crystal and electronic structure of the SmxFe1-xBO3 oxide  <b>Author:</b> O M Ozkendir  <b>Speaker:</b> O M Ozkendir</p>
	<p><b>Title:</b> Security of bottle when charging on high-pressure by air  <b>Authors:</b> M Todici, T Latinovic, V Golubovic-Bugarski and A Majstorovic  <b>Speaker:</b> M Todici</p>
	<p><b>Title:</b> Evaluation of green living walls and their part in sustainable development  <b>Authors:</b> D Dimitrijević, P Živković, M Tomić, M Dobrnjac, and J Branković  <b>Speaker:</b> P Živković</p>
	<p><b>Title:</b> Study of materials used for the thermal protection of the intake system for internal combustion engines  <b>Authors:</b> C Birtok-Băneasă, S Rațiu, V Puțan and A Josan  <b>Speaker:</b> C Birtok-Băneasă</p>
	<p><b>Title:</b> Mathematical and physical modeling of thermal stratification phenomena in steel ladles  <b>Authors:</b> V Putan, L Vilceanu, A Socalici and A Putan  <b>Speaker:</b> V Putan</p>
	<p><b>Title:</b> Aspects regarding manufacturing technologies of composite materials for brake pad application  <b>Authors:</b> A L Craciun, T Hepuț and C Pinca-Bretotean  <b>Speaker:</b> A L Craciun</p>
	<p><b>Title:</b> Methods of silver recovery from radiographs – comparative study  <b>Authors:</b> L R Canda, E Ardelean and T Hepuț  <b>Speaker:</b> L R Canda</p>
	<p><b>Title:</b> Research regarding the vacuuming of liquid steel on steel degassing  <b>Authors:</b> M Magaon, M Radu, S Serban and L Zgripcea  <b>Speaker:</b> M Magaon</p>
	<p><b>Title:</b> Critical analysis of the influence of the possibilities of establishing the moulding technology on obtaining the castings  <b>Authors:</b> A Josan, C Pinca-Bretotean and S Rațiu  <b>Speaker:</b> A Josan</p>
	<p><b>Title:</b> Research on the improvement of the physical and mechanical characteristics of steels for conical gearing through nitrocarburization  <b>Author:</b> G Mihut  <b>Speaker:</b> G Mihut</p>
	<p><b>Title:</b> Surface treatments for aluminum alloys  <b>Authors:</b> M Ardelean, S Lascau, E Ardelean and A Josan  <b>Speaker:</b> M Ardelean</p>

17:00-17:15

Coffee Break

	<p><b>Title:</b> Contributions to optimization of storage and transporting industrial goods</p> <p><b>Authors:</b> T Babanatsas, R Babanatis-Merce, D O Glavan and A Glavan</p> <p><b>Speaker:</b> T Babanatsas</p>
	<p><b>Title:</b> Modelling in 3D the olive trees cultures in order to establish the forces (interval) needed for automatic harvesting</p> <p><b>Authors:</b> T Babanatsas, D O Glavan, R Babanatis-Merce and S A Maris</p> <p><b>Speaker:</b> T Babanatsas</p>
	<p><b>Title:</b> Comparative study of tool machinery sliding systems. Comparison between plane or cylindrical basic shapes</p> <p><b>Authors:</b> D O Glavan, T Babanatsas and R Babanatis-Merce</p> <p><b>Speaker:</b> D O Glavan</p>
	<p><b>Title:</b> Study on influence of supplying compressed air channels and evacuating channels on pneumatical oscillation system for vibromoothing</p> <p><b>Authors:</b> D O Glavan, I Radu, T Babanatsas and R Babanatis-Merce</p> <p><b>Speaker:</b> D O Glavan</p>
	<p><b>Title:</b> Statistical experiments using the multiple regression research for prediction of proper hardness in areas of phosphorus cast-iron brake shoes manufacturing</p> <p><b>Authors:</b> I Kiss, V G Cioată, S A Ratiu, M Rackov and M Penčić</p> <p><b>Speaker:</b> I Kiss</p>
	<p><b>Title:</b> Statistical research using the multiple regression analysis in areas of the cast hypereutectoid steel rolls manufacturing</p> <p><b>Authors:</b> I Kiss, V Alexa, S Serban, M Rackov and M Čavić</p> <p><b>Speaker:</b> I Kiss</p>
	<p><b>Title:</b> Directions for material recovery of used tires and their use in the production of new products intended for the industry of civil construction and pavements</p> <p><b>Authors:</b> C Bulei, M P Todor, T Heput and I Kiss</p> <p><b>Speaker:</b> C Bulei</p>
	<p><b>Title:</b> Researches on the development of new composite materials complete / partially biodegradable using natural textile fibers of new vegetable origin and those recovered from textile waste</p> <p><b>Authors:</b> M P Todor, C Bulei, T Heput and I Kiss</p> <p><b>Speaker:</b> M P Todor</p>
	<p><b>Title:</b> The rainfall-runoff modeling using a conceptual model</p> <p><b>Author:</b> C Badaluta-Minda</p> <p><b>Speaker:</b> C Badaluta-Minda</p>
20:00-24:00	Conference Dinner



# International Conference on Applied Sciences

May 11, 2017

14:00-20:00

**ELECTRICAL ENGINEERING Session (Room FI-1)**

Chairmen: Branko BLANUSA and Gabriel POPA

	<p><b>Title:</b> Hydroelectric Power Plant with variable flow on drinking water adduction</p> <p><b>Authors:</b> S I Deaconu, R Babău, G N Popa and P L Gherman</p> <p><b>Speaker:</b> S I Deaconu</p>
	<p><b>Title:</b> Highlighting the harmonic regime generated by electric locomotives equipped with DC motors</p> <p><b>Authors:</b> I Baciuc and C D Cuntan</p> <p><b>Speaker:</b> C D Cuntan</p>
	<p><b>Title:</b> Determination of the wind power systems load to achieve operation in the maximum energy area</p> <p><b>Authors:</b> C P Chioncel, E Spunei, C V Anghel-Drugarin and O G Tirian</p> <p><b>Speaker:</b> C V Anghel-Drugarin</p>
	<p><b>Title:</b> Performances' optimization of an axial flux synchronous machine for electrical traction system</p> <p><b>Authors:</b> I Mandru, S Deaconu, M Topor, I Nuca and M Burduniuc</p> <p><b>Speaker:</b> I Mandru</p>
	<p><b>Title:</b> Electrical engineering related to high voltage</p> <p><b>Author:</b> O Olawale</p> <p><b>Speaker:</b> O Olawale</p>
	<p><b>Title:</b> Power quality analysis of DC arc furnace operation using the Bowman model for electric arc</p> <p><b>Authors:</b> P L Gherman</p> <p><b>Speaker:</b> P L Gherman</p>
	<p><b>Title:</b> A few categories of electromagnetic field problems treated through fuzzy logic</p> <p><b>Authors:</b> M Lolea, S Dziţac and Gh Ias</p> <p><b>Speaker:</b> M Lolea</p>
	<p><b>Title:</b> Calculation methods and spatial distribution assessment of the parameters of electric and magnetic field generated by power networks</p> <p><b>Authors:</b> M Lolea, S Dziţac and A Minda</p> <p><b>Speaker:</b> M Lolea</p>
	<p><b>Title:</b> Study regarding the influence of environmental temperature and irradiation conditions on the performance of a photovoltaic solar module</p> <p><b>Authors:</b> C Haţiegan, N Gillich, C Popescu, E Răduca, L Haţiegan and C P Chioncel</p> <p><b>Speaker:</b> C Haţiegan</p>
	<p><b>Title:</b> Methods for maintaining the continuity of power supply in hospitals</p> <p><b>Authors:</b> V V Mihuţ, M Pănoiu, C Pănoiu and I Baciuc</p> <p><b>Speaker:</b> V V Mihuţ</p>
	<p><b>Title:</b> Simulation of internal control services in the 220/110 kV substation Mintia</p> <p><b>Authors:</b> D Ciulica and R Rob</p> <p><b>Speaker:</b> D Ciulica</p>
	<p><b>Title:</b> Optimizing the switching time for 400 kV SF6 circuit breakers</p> <p><b>Authors:</b> D Ciulica, M Pănoiu and C Pănoiu</p> <p><b>Speaker:</b> D Ciulica</p>
	<p><b>Title:</b> Power factor improvement in three-phase networks with unbalanced inductive loads using the Roederstein ESTamat RPR varmetric regulator</p> <p><b>Authors:</b> C M Diniş, C D Cuntan, R O S Rob and G N Popa</p> <p><b>Speaker:</b> C M Diniş</p>
	<p><b>Title:</b> Automation of water supply and recirculation-filtration of water at a swimming pool using Zelio PLC</p> <p><b>Authors:</b> C M Diniş, G N Popa and A Iagăr</p> <p><b>Speaker:</b> C M Diniş</p>

17:00-17:15	Coffee Break
	<p><b>Title:</b> Time series prediction in the case of nonlinear loads by using Adaline and NAR neural networks  <b>Authors:</b> L Ghiormez, M Panoiu, C Panoiu and O Tirian  <b>Speaker:</b> L Ghiormez</p>
	<p><b>Title:</b> Study of a phase-to-ground fault on a 400 kV overhead transmission line  <b>Authors:</b> A Iagăr, G N Popa and C M Diniş  <b>Speaker:</b> A Iagar</p>
	<p><b>Title:</b> Experimental model of a wind energy conversion system  <b>Authors:</b> C Vasar, C L Rat and O Prostean  <b>Speaker:</b> C L Rat</p>
	<p><b>Title:</b> Hardware-in-the-Loop emulator for a hydrokinetic turbine  <b>Authors:</b> C L Rat, I Filip and O Prostean  <b>Speaker:</b> C L Rat</p>
	<p><b>Title:</b> Out-of-equilibrium body potential measurements in Pseudo-MOSFET for Biosensing  <b>Authors:</b> L Benea, M Bawedin, C Delacour, S Cristoloveanu and I Ionica  <b>Speaker:</b> L Benea</p>
	<p><b>Title:</b> The comfort of the passengers  <b>Authors:</b> R Hasa, T Liedl and J Bucha  <b>Speaker:</b> R Hasa</p>
	<p><b>Title:</b> Vrška Čuka wind energy potentials  <b>Authors:</b> P Živković, M Tomić, D Dimitrijević and M Dobrnjać  <b>Speaker:</b> P Živković</p>
	<p><b>Title:</b> Issues regarding the usage of MPPT techniques in micro grid systems  <b>Authors:</b> I Szeidert and I Filip  <b>Speaker:</b> I Szeidert</p>
	<p><b>Title:</b> Issues regarding modelling and control of a double winded induction generator  <b>Authors:</b> I Szeidert and C Vasar  <b>Speaker:</b> I Szeidert</p>
	<p><b>Title:</b> Modeling and prediction of the pantograph – catenary distance variation in railway transportation  <b>Authors:</b> M Panoiu, C Panoiu, S Rusu Anghel, R Rob  <b>Speaker:</b> M Panoiu</p>
	<p><b>Title:</b> Electromechanical converters for electric vehicles  <b>Authors:</b> T Ambros, M Burduniuc, S I Deaconu and N Rujanschi  <b>Speaker:</b> T Ambros</p>
	<p><b>Title:</b> Electric axial magnetic flux machines  <b>Authors:</b> I Nuca, T Ambros, M Burduniuc, S I Deaconu and A Turcanu  <b>Speaker:</b> I Nuca</p>
	<p><b>Title:</b> Bidirectional automatic release of reserve for low voltage network made with low capacity PLCs  <b>Authors:</b> I Popa, G N Popa, C M Diniş and S I Deaconu  <b>Speaker:</b> G N Popa</p>
	<p><b>Title:</b> Industrial application of low voltage bidirectional automatic release of reserve  <b>Authors:</b> G N Popa, C M Diniş, A Iagăr, S I Deaconu and I Popa  <b>Speaker:</b> G N Popa</p>
20:00-24:00	Conference Dinner



May 11, 2017

14:00-20:00

**COMPUTERS ENGINEERING Session (Room FI-2)**  
**Chairmen: Ratko DEJANOVIC and Manuela PĂNOIU**

	<p><b>Title:</b> The control application with eye blink fatigue due to the android device  <b>Authors:</b> M Habonimana, M H Birashakwa, D Niyonkuru, H Djohari and V Kabaza  <b>Speaker:</b> M H Birashakwa</p>
	<p><b>Title:</b> Anthropometric parameters problem solving of shoe lasts by deforming membranes with medium weight  <b>Authors:</b> A V Albu and C V Anghel Drugarin  <b>Speaker:</b> C V Anghel-Drugarin</p>
	<p><b>Title:</b> Practical application in spectral analysis, combining Labview and Open Source Software  <b>Authors:</b> C P Chioncel and C V Anghel Drugarin  <b>Speaker:</b> C V Anghel-Drugarin</p>
	<p><b>Title:</b> Using TELOS for the planning of the information system audit  <b>Authors:</b> D Drljača and B Latinović  <b>Speaker:</b> D Drljača</p>
	<p><b>Title:</b> Gamification in the context of a smart city  <b>Authors:</b> M Zica, A Ionica, M Leba and C Rus  <b>Speaker:</b> A Ionica</p>
	<p><b>Title:</b> Driver monitoring system for automotive safety  <b>Authors:</b> A Lorincz, M Risteiu, A Ionica and M Leba  <b>Speaker:</b> A Ionica</p>
	<p><b>Title:</b> Quadcopter control using a BCI  <b>Authors:</b> S Rosca, Monica Leba, A Ionica and O Gamulescu  <b>Speaker:</b> M Leba</p>
	<p><b>Title:</b> A small step in VLC systems – A big step in LiFi implementation  <b>Authors:</b> S Riurean, A A Nagy, M Leba and A Ionica  <b>Speaker:</b> M Leba</p>
	<p><b>Title:</b> System for ontology alignment for the Semantic Sensor Web which uses fuzzy logic techniques  <b>Authors:</b> A Pintescu, A L Pop-Vădean and P P Pop  <b>Speaker:</b> A Pintescu</p>
	<p><b>Title:</b> Cooling water flow control realized with systems based on fuzzy mechanism  <b>Authors:</b> G O Tirian, C A Gheorghiu, T Heput and C P Chioncel  <b>Speaker:</b> C A Gheorghiu</p>
	<p><b>Title:</b> The influence of cooling parameters on the speed of steel casting  <b>Authors:</b> G O Tirian, C A Gheorghiu, T Heput and C P Chioncel  <b>Speaker:</b> C A Gheorghiu</p>
	<p><b>Title:</b> Controlling and monitoring a robotic arm through web interface  <b>Authors:</b> C Barz, K Jalba, T Latinovic, D Preradović, S Epple and A Pop-Vadean  <b>Speaker:</b> C Barz</p>

17:00-17:15

Coffee Break

	<p><b>Title:</b> Wind turbine remote control using Android devices  <b>Authors:</b> C L Rat and M Panoiu  <b>Speaker:</b> C L Rat</p>
	<p><b>Title:</b> IPS technologies in sales improvement in companies in Banja Luka, Bosnia and Herzegovina  <b>Authors:</b> L Micic and D Preradovic  <b>Speaker:</b> D Preradovic</p>
	<p><b>Title:</b> A comparison between using distance sensors for measuring the pantograph vertically movement  <b>Authors:</b> R Rob, C Panoiu, S. Rusu-Anghel and M Panoiu  <b>Speaker:</b> C Panoiu</p>
	<p><b>Title:</b> Information system for automatic diagnosis of the railway contact line  <b>Authors:</b> I Muscalagiu, C Abrudean, D M Muscalagiu and S Rusu-Anghel  <b>Speaker:</b> I Muscalagiu</p>
	<p><b>Title:</b> A strong background in computer technology  <b>Authors:</b> O D Obanegha  <b>Speaker:</b> O D Obanegha</p>

20:00-24:00	Conference Dinner
-------------	-------------------



**International Conference  
on Applied Sciences**

May 11, 2017

14:00-20:00

**FUNDAMENTAL SCIENCES Session (Room F0-1)**

Chairmen: Diana BISTRIAN and Daniel ROMANO

	<p><b>Title:</b> Arguments for the need of mining education continuity and development in Romania  <b>Authors:</b> I Bud, S Duma, I Pasca and D Gusat  <b>Speaker:</b> S Duma</p>
	<p><b>Title:</b> Natural frequencies of thin rectangular plates clamped on contour using the finite element method  <b>Authors:</b> L Hatiegan, C Hatiegan, G R Gillich, C O Hamat, O Vasile and L Nedeloni  <b>Speaker:</b> C Hatiegan</p>
	<p><b>Title:</b> Possibility of using the smooth spline functions in approximation of average course of terrain inclinations caused by underground mining exploitation conducted at medium depth  <b>Author:</b> J Orwat  <b>Speaker:</b> J Orwat</p>
	<p><b>Title:</b> Evaluation of application possibilities of smooth splines to designation of the average values of terrain curvatures measured after the termination of hard coal exploitation conducted at medium depth  <b>Author:</b> J Orwat  <b>Speaker:</b> J Orwat</p>
	<p><b>Title:</b> General aspects of speed multipliers  <b>Authors:</b> A Bara, D Nedelcu, C Hatiegan, L Hatiegan and L Nedeloni  <b>Speaker:</b> A Bara</p>
	<p><b>Title:</b> Experimental measurements concerning the stator insulation partial discharge level of a hydro-generator of high power  <b>Authors:</b> C Hatiegan, A Bara, E Răduca, M R Jurcul, D Nedelcu and D A Pârșan  <b>Speaker:</b> A Bara</p>
	<p><b>Title:</b> The numerical modeling of mixing phenomena of nanofluids in passive micromixers  <b>Authors:</b> R Milotin and D Lelea  <b>Speaker:</b> R Milotin</p>
	<p><b>Title:</b> Determination of the unsulfonate color concentration in D&amp;C Yellow No. 10 by the derivative spectrophotometry  <b>Author:</b> S Jitian  <b>Speaker:</b> S Jitian</p>
	<p><b>Title:</b> Determination of Maintainability for Dacia 1304, 1,9D utility vehicle  <b>Authors:</b> A Budiul-Berghian, T Vasiu and C Birtok Baneasa  <b>Speaker:</b> A Budiul-Berghian</p>
	<p><b>Title:</b> Study and model on economic application for cluster management within the North-West region of Romania  <b>Authors:</b> D Stoicovici, M Ungureanu, I Craciun and A Berdie  <b>Speaker:</b> D Stoicovici</p>
	<p><b>Title:</b> Order management empowering entrepreneurial partnerships in the context of new technologies  <b>Authors:</b> M Tămășilă, G Proștean and A Diaconescu  <b>Speaker:</b> A Diaconescu</p>
	<p><b>Title:</b> Prevention of mobbing  <b>Author:</b> V Rodic  <b>Speaker:</b> V Rodic</p>

17:00-17:15

Coffee Break

	<p><b>Title:</b> Neuromarketing: a tool for student selection by universities  <b>Author:</b> M C Benea  <b>Speaker:</b> M C Benea</p>
	<p><b>Title:</b> The influence of the soil type on the reduction of pollution  <b>Author:</b> M L Benea  <b>Speaker:</b> M L Benea</p>
	<p><b>Title:</b> Creating long-term relationship with consumers based on marketing promotion  <b>Authors:</b> S Milutinović and N Vojvodić  <b>Speaker:</b> N Vojvodić</p>
	<p><b>Title:</b> Lie-Trotter formula for <math>C_0</math>-semigroups on the dual of a Banach space  <b>Authors:</b> L D Lemle and F L Pater  <b>Speaker:</b> L D Lemle</p>
	<p><b>Title:</b> Highly-efficient reduced order modelling techniques for shallow water problems  <b>Authors:</b> D A Bistriian and I M Navon  <b>Speaker:</b> D A Bistriian</p>
	<p><b>Title:</b> Determination of the performance of the Kaplan hydraulic turbines through simplified procedure  <b>Authors:</b> I Pădureanu, M R Jurcu, V C Câmpian and C Hațiegan  <b>Speaker:</b> I Pădureanu</p>
	<p><b>Title:</b> Unbalance influence on the rotating assembly dynamics of a hydro  <b>Authors:</b> I Pădureanu, M R Jurcu, V C Câmpian and C Hațiegan  <b>Speaker:</b> I Pădureanu</p>
20:00-24:00	Conference Dinner



**International Conference  
on Applied Sciences**

May 12, 2017

9:00-11:00

**VIDEO-CONFERENCE Session (Room F0-1)**  
**Chairmen: Goran SIKANIC and Ionel MUSCALAGIU**

	<p><b>Title:</b> Diagnosis diagrams for passing signals on an automatic block signaling railway section  <b>Authors:</b> E Spunei, I Piroi, C P Chioncel and F Piroi  <b>Speaker:</b> E Spunei</p>
	<p><b>Title:</b> Truck circuits diagnosis for railway lines equipped with an automatic block signalling system  <b>Authors:</b> E Spunei, I Piroi, C Muscai, E Răduca and F Piroi  <b>Speaker:</b> E Spunei</p>
	<p><b>Title:</b> Detecting road irregularities by image enhancements and thresholding  <b>Authors:</b> S Ivascu, I R Stanciu and R Vasii  <b>Speaker:</b> S Ivascu</p>
	<p><b>Title:</b> The importance of correct specification of tribological parameters in dynamical systems modelling  <b>Authors:</b> S Alaci, F C Ciornei, I C Romănu and M C Ciornei  <b>Speaker:</b> I C Romanu</p>
	<p><b>Title:</b> Identification of exponent from load-deformation relation for soft materials from impact tests  <b>Authors:</b> F C Ciornei, S Alaci, I C Romănu, M C Ciornei and G Sopon  <b>Speaker:</b> I C Romanu</p>
	<p><b>Title:</b> A comparative study of the A* heuristic search algorithm used to solve efficiently a puzzle game  <b>Authors:</b> A E Iordan  <b>Speaker:</b> A E Iordan</p>
	<p><b>Title:</b> An efficient algorithm used to determine the intersection area of three circles  <b>Authors:</b> A E Iordan  <b>Speaker:</b> A E Iordan</p>
	<p><b>Title:</b> Aspects regarding the capitalization of the powdery wastes in steelmaking  <b>Authors:</b> E C Dragna, A Ioana and N Constantin  <b>Speaker:</b> E C Dragna</p>
	<p><b>Title:</b> Methods of steel manufacturing - The electric arc furnace  <b>Authors:</b> E C Dragna, A Ioana and N Constantin  <b>Speaker:</b> E C Dragna</p>
	<p><b>Title:</b> Maintenance of reference standards in the field of viscosity  <b>Authors:</b> E A Moșulică, I Cîrneanu, N Constantin and V Rucai  <b>Speaker:</b> E A Mosulica</p>
	<p><b>Title:</b> Steel refining possibilities in LF  <b>Authors:</b> M G Dumitru, A Ioana, N Constantin, F Ciobanu and M Pollifroni  <b>Speaker:</b> M G Dumitru</p>
	<p><b>Title:</b> Studies and technological processes of developing a light weight delivery fuel tank form advanced composites materials for helicopters  <b>Authors:</b> I A Burlacu, C Pușcașu and D O Dumitrașcu  <b>Speaker:</b> I A Burlacu</p>
	<p><b>Title:</b> The interbelic Germans from the Banat Highland. Coal, steel, mines and forges  <b>Authors:</b> C Rudolf and D Micliuc  <b>Speaker:</b> C Rudolf</p>
	<p><b>Title:</b> Industrial production of the interbelic German from the Banat Highland  <b>Authors:</b> C Rudolf and C Hatiegan  <b>Speaker:</b> C Rudolf</p>
	<p><b>Title:</b> Landscaping solutions used for noise isolation  <b>Authors:</b> D M Micliuc and G R Gillich  <b>Speaker:</b> D M Micliuc</p>



11:00

End of the Session

May 12, 2017

11:00-15:00

Excursion &amp; Visits to:

**CORVIN CASTLE Hunedoara: The medieval fortress of Hunedoara  
and the most spectacular Gothic-style castle in Romania**

This architectural monument dating from the fourteenth century is representative of medieval Gothic art in Europe. The uniqueness of the monument lies in Hunedoara high degree of representativeness for military architecture in South-Eastern Europe of the fifteenth century, he developed the elements that transform the castle of Hunedoara in a singular case, subsequent interventions are fifteenth century (construction of the seventeenth century, the restoration of the end of the nineteenth century and early twentieth century), which offers visitor a unique mixture of architectural elements belonging to the Renaissance, Baroque and Gothic styles.

**SC EUROSPORT DHS SA Deva: The manufacturer and distributor of bicycles**

Specialized in both OEM and its own trademarks, the company produces a large variety of models to meet from the most basic needs of the casual bicycle rider or commuter to the specific high demands of semi-professionals. The company's continuing efforts managed to substantially re-popularize cycling in Romania, involving schools, media and government authorities to enrol in developing safety programs and free bicycle renting programs in major cities.

15:00

Lunch

18:00

End of the Conference



**International Conference  
on Applied Sciences**

**- ICAS 2017 -**  
**International Conference**  
**on Applied Sciences**



INTERNATIONAL CONFERENCE  
on APPLIED SCIENCE  
– ICAS 2017 –

UNIVERSITY POLITEHNICA TIMISOARA  
FACULTY OF ENGINEERING HUNEDOARA  
5, REVOLUTIEI, 331128, HUNEDOARA  
e-mail: [icas\\_conference@yahoo.ro](mailto:icas_conference@yahoo.ro)