



UNIVERSITY OF CRAIOVA

Faculty of Mechanics

Department of Engineering and Management  
of Technological Systems

2<sup>nd</sup> International Conference

**ADVANCES**  
IN  
**ENGINEERING & MANAGEMENT**



**ADEM 2012**  
**Conference Program**



December 13<sup>th</sup> – 14<sup>th</sup>, 2012  
Drobeta Turnu-Severin



# Programme of ADEM 2012

<b>December, 12<sup>th</sup></b>		
17 <sup>00</sup> – 19 <sup>00</sup>	Registration	“Continental” Hotel, Lobby
19 <sup>00</sup> – 23 <sup>00</sup>	Welcome Cocktail	“Continental” Hotel, Restaurant
<b>December, 13<sup>th</sup></b>		
09 <sup>00</sup> – 10 <sup>00</sup>	Registration	Registration Desk, CUDTS
10 <sup>00</sup> – 11 <sup>00</sup>	Plenary Session	“Gheorghe Anghel” Auditorium, CUDTS
11 <sup>00</sup> – 11 <sup>20</sup>	Coffee Break	CUDTS
11 <sup>20</sup> – 12 <sup>20</sup>	Plenary Session	“Gheorghe Anghel” Auditorium, CUDTS
13 <sup>00</sup> – 14 <sup>30</sup>	Lunch	“Diplomat” Restaurant
15 <sup>00</sup> – 17 <sup>15</sup>	Oral Session	IMST Department – B11, B13, B14
17 <sup>15</sup> – 17 <sup>30</sup>	Coffee Break	IMST Department
17 <sup>30</sup> – 19 <sup>45</sup>	Oral Session	IMST Department – B11, B13, B14
20 <sup>30</sup>	Banquet	“Continental” Hotel, Restaurant
<b>December, 14<sup>th</sup></b>		
09 <sup>00</sup> – 10 <sup>30</sup>	Oral Session	IMST Department – B11, B13, B14
10 <sup>30</sup> – 10 <sup>45</sup>	Coffee Break	IMST Department
10 <sup>45</sup> – 11 <sup>00</sup>	Closing Words	IMST Department – B11, B13, B14
11 <sup>30</sup>	Technical Visit	Iron Gate I Power Plant

## Registration & Fee

Categories	Fees
Conference Fee	150 RON / 35 EUR
Additional Conference Proceedings	45 RON / 10 EUR

### Methods of payment:

- Bank account: RO54CARP026000670016EU01, PRONANOMAT Association (for EUR)  
RO54CARP026000670016RO01, PRONANOMAT Association (for RON)  
(Consider important to specify “Fee for ADEM 2012”, name and affiliation of the participant)
- Cash, at Conference Desk

## Plenary Session – “Gheorghe Anghel” Auditorium

10 <sup>00</sup> – 10 <sup>15</sup>	Welcome Speech	I. CIUPITU, vice – Rector UCV
10 <sup>15</sup> – 10 <sup>35</sup>	Research and Development at IMST Department	G. BENGA, Head of Department IMST
10 <sup>35</sup> – 11 <sup>00</sup>	New lignocelluloses composites for automotive interior components	I. CURTU, O. M. TERCIU, M. D. STANCIU

## Coffee Break – CUDTS

11 <sup>20</sup> – 11 <sup>40</sup>	High performance thermal sprayed coatings	A. V. SERBAN, A. RADUTA, D. UTU
11 <sup>40</sup> – 12 <sup>00</sup>	Gradual Porous Sintered Materials by Powder Sedimentation	I. VIDA-SIMITI
12 <sup>00</sup> – 12 <sup>20</sup>	Nanotechnology – based decontaminant materials: a review	D. PANAGIOTARAS

## Lunch – “Diplomat” Restaurant

13 <sup>00</sup> – 14 <sup>30</sup>	Lunch	“Diplomat” Restaurant
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## Oral Session – IMST Department

<b>ADVANCED MATERIALS AND TECHNOLOGIES</b>		
<b>IMST Department, B13</b>		
<b>Chairman: Oana GINGU</b>		
15 <sup>00</sup> – 15 <sup>15</sup>	Textile inserts into sandwich panels made of glued veneers. Influence on curvature radius	C. COȘEREANU, D. LICA
15 <sup>15</sup> – 15 <sup>30</sup>	The influence of the powders loading voltage upon the micro-hardness and ohmic resistance of the layers deposited by metallization	I. C. ROATA, R. IOVANAS
15 <sup>30</sup> – 15 <sup>45</sup>	Influence of two steps sintering parameters on tribological behaviour of nanostructured Hap/Ti biocomposites	O. GINGU, G. BENGA, I. PASCU, G. SIMA, A. OLEI, A. HARABOR
15 <sup>45</sup> – 16 <sup>00</sup>	Tensile test behavior of sintered steels produced by „gascarbusint” method	M. C. CRIVEANU, M. C. MANGRA

16 <sup>00</sup> – 16 <sup>15</sup>	Research regarding the mechanical milling process of barium ferrite type M	V. H. NICOARA, C. NICOLICESCU, I. STEFAN
16 <sup>15</sup> – 16 <sup>30</sup>	Thermal behavior of mechanically alloyed powders based on tungsten carbide	C. NICOLICESCU, V. H. NICOARĂ, S. RADU, I. STEFAN
16 <sup>30</sup> – 16 <sup>45</sup>	Mechanisms of slag deposits accumulation on combustion systems areas	A. POPA, S. M. SOFRONIE
16 <sup>45</sup> – 17 <sup>00</sup>	Researches on formation of BaFe <sub>2</sub> O <sub>4</sub> from ceramic powders obtained by ball milling	I. STEFAN, C. NICOLICESCU, A. OLEI, M. TROTEA
17 <sup>00</sup> – 17 <sup>15</sup>	Influence of the reinforcing elements on the wear behavior of Al (SiC + graphite) composites elaborated by classic sintering route	G. SIMA, O. GÎNGU
17 <sup>15</sup> – 17 <sup>30</sup>	<b>COFFEE BREAK</b>	<b>IMST Department</b>
17 <sup>30</sup> – 17 <sup>45</sup>	The characterization of steel layer obtained by nitro-carburizing in nitrogen and propane controlled atmosphere	S. DUBOVAN, T. POPESCU, V. BUHARU
17 <sup>45</sup> – 18 <sup>00</sup>	Studies regarding the carbon distribution and hardness of iron parts sintered in vacuum and carburized	T. POPESCU, C. GHERMEC, O. GHERMEC
18 <sup>00</sup> – 18 <sup>15</sup>	Studies regarding the influence of the amount of carbon on the resilience of steels obtained by carburizing of iron powder in methane gas atmosphere	C. GHERMEC, O. GHERMEC
18 <sup>15</sup> – 18 <sup>30</sup>	Mechanical properties regarding to aluminum foam-filled tubes	M. CARANFIL, V. GEAMAN, D. L. MOTOC
18 <sup>30</sup> – 18 <sup>45</sup>	Casting techniques applied for obtaining aluminum foams with closed pores	M. CARANFIL, V. GEAMAN, M. A. POP, V. JIMAN, D. L. MOTOC
18 <sup>45</sup> – 19 <sup>00</sup>	Laser-Diode as power source for polymer bonding	I.D. SAVU, S.V. SAVU
19 <sup>00</sup> – 19 <sup>15</sup>	New Romanian developments in the field of the quality of the welding processes	I.D. SAVU, L. DOMUTA, S.V. SAVU
19 <sup>15</sup> – 19 <sup>30</sup>	Study regarding the front wing aerodynamics of a race car	D. TUTUNEA, G. GHERGHINA



## ENVIRONMENT ENGINEERING FOR SUSTAINABLE DEVELOPMENT

IMST Department, B11

**Chairman: Elena GAVRILESCU**

15 <sup>00</sup> – 15 <sup>15</sup>	Study of noise pollution produced by rail traffic	G. DEMIAN, M. DEMIAN
15 <sup>15</sup> – 15 <sup>30</sup>	Overview of non-polluting technologies to produce electric energy	M. DEMIAN, G. DEMIAN
15 <sup>30</sup> – 15 <sup>45</sup>	Research on replacement of pollutant	I. G. BUCSE, M. CIOBANU

	alloying elements with ecologically elements in sintered alloyed steels	
15 <sup>45</sup> – 16 <sup>00</sup>	The ecological rehabilitation of the ash layers from the central area of Oltenia	C. COTIGA, M. CIOBANU, I. G. BUCSE
16 <sup>00</sup> – 16 <sup>15</sup>	Study on use of solar energy in Mehedinti county	O. GHERMEC, C. GHERMEC
16 <sup>15</sup> – 16 <sup>30</sup>	The monitoring of sound pollution in Craiova city	E. GAVRILESCU, S. M. POPESCU, D. E. CIUPEANU-CALUGARU
16 <sup>30</sup> – 16 <sup>45</sup>	Possibilities of obtaining metallic powders from recycled chips	S. RADU, C. NICOLICESCU, M. CIOBANU
16 <sup>45</sup> – 17 <sup>00</sup>	Studies on the increasing of the environmental performance when obtaining high resistance parts through PM	T. POPESCU, O. GHERMEC, C. GHERMEC
17 <sup>10</sup> – 17 <sup>15</sup>	Studies on air quality evolution in Drobeta Turnu - Severin	M. CIOBANU, S. RADU, I. G. BUCSE
17 <sup>15</sup> – 17 <sup>30</sup>	<b>COFFEE BREAK</b>	<b>IMST Department</b>
17 <sup>30</sup> – 17 <sup>45</sup>	Environmental management at H.S. PORTILE DE FIER	S. SBÎRCEA
17 <sup>45</sup> – 18 <sup>00</sup>	Technical report on the wastewater treatment plant (WWTP) at Smithfield slaughterhouse SRL Timișoara	M. CRIVEANU
18 <sup>00</sup> – 18 <sup>15</sup>	Aspects about using multi-criteria decision models for making decisions regarding environmental quality and protection	L. GRECU
18 <sup>15</sup> – 18 <sup>30</sup>	The behavior of a 4 stroke SI engine during laboratory experiments with regard over pollutant emissions	A. M. DIMA
18 <sup>30</sup> – 18 <sup>45</sup>	Studies and researches over the soot deposits on a DI diesel engine	A. M. DIMA
18 <sup>45</sup> – 19 <sup>00</sup>	Considerations above combustion of solid fuels indoors	S. SOFRONIE, A. POPA
19 <sup>00</sup> – 19 <sup>15</sup>	Enhancing the environmental impact of solid (un)conventional fuels' combustion by conducting a viable kinetic analysis	A. ROTARU



## MODELING AND SIMULATION

IMST Department, B14

**Chairman: Daniela COMAN**

15 <sup>00</sup> – 15 <sup>15</sup>	Simulation of urban traffic noise reduction in Brasov City using noise barriers	M. D. STANCIU, I. CURTU, I. TIMAR
15 <sup>15</sup> – 15 <sup>30</sup>	FEM applied to analyse a chair resistance when used various species of wood compared with oak depreciated wood	C. COȘEREANU, D. LICA, I. CURTU

15 <sup>30</sup> – 15 <sup>45</sup>	Theoretical approach and FEM analysis on mixed hardwood composite panels	C. COȘEREANU, I. CURTU
15 <sup>45</sup> – 16 <sup>00</sup>	Micromechanics based predictions of hybrid CF/CG polymer composites dynamic effective properties	D. LUCA MOTOC, V. GEAMAN
16 <sup>00</sup> – 16 <sup>15</sup>	Green composites' CTE property prediction based on micromechanical modeling	D. LUCA MOTOC, V. GEAMAN
16 <sup>15</sup> – 16 <sup>30</sup>	Experimental method for modal parameters identification	D. ILINCIOIU, C. M. MIRITOIU
16 <sup>30</sup> – 16 <sup>45</sup>	Control of a tentacle structure based on energetic relations	M. FLORESCU
16 <sup>45</sup> – 17 <sup>00</sup>	Parameter case simulation for mobile robot kinematics	A. IONESCU
17 <sup>00</sup> – 17 <sup>15</sup>	Stochastic Petri net in flexible manufacturing system modeling	D. COMAN
17 <sup>15</sup> – 17 <sup>30</sup>	<b>COFFEE BREAK</b>	<b>IMST Department</b>



## INLAND NAVIGATION AND LOGISTICS

**IMST Department, B14**

**Chairman: M. GHIBA**

17 <sup>30</sup> – 17 <sup>45</sup>	The Danube Strategy and the Slovak Republic	A. DAVID, J. SOSEDOVA
17 <sup>45</sup> – 18 <sup>00</sup>	Some identification possibilities on hull derivative investigation	D. G. GYÖRGY
18 <sup>00</sup> – 18 <sup>15</sup>	Transient parameter sensibility of semi empirical motion equations of inland vessels	C. L. HARGITAI
18 <sup>15</sup> – 18 <sup>30</sup>	Intermodal transport studies on the Romanian sector of the Danube	L. DUBOVAN, T. POPESCU
18 <sup>30</sup> – 18 <sup>45</sup>	Improving risk control parameters through selective collection and quantified parameters efficient communication	M. GHIBA
18 <sup>45</sup> – 19 <sup>00</sup>	Strategy towards harmonization of inland waterways transport education and training	G. BENGA, M. GHIBA
19 <sup>00</sup> – 19 <sup>15</sup>	Transnational cooperation network among the IWT education and training organizations	S. SAVU, D. SAVU
19 <sup>00</sup> – 19 <sup>15</sup>	Inland waterways transport for logistic chain	S. DUBOVAN, L. DUBOVAN

**Banquet – “Continental” Hotel, Restaurant**

# ADEM 2012 – Day Two: December, 14<sup>th</sup>

## Oral Session – IMST Department

09 <sup>00</sup> – 10 <sup>30</sup>	Conclusions	IMST Department – B11, B13, B14
10 <sup>30</sup> – 10 <sup>45</sup>	Coffee Break	IMST Department
10 <sup>45</sup> – 11 <sup>00</sup>	Closing Words	IMST Department – B11, B13, B14

## Technical Visit – IRON GATE 1 Power Plant



# Drobeta Turnu Severin



## MAP

