



**SAE**International™

**SIAR**



International Congress on Automotive and Transport Engineering

# AUTOMOTIVE AND FUTURE TECHNOLOGIES

# CONAT 2010

## THE 11<sup>TH</sup> INTERNATIONAL CONGRESS

### FINAL PROGRAMME



October 27-29, 2010 BRASOV  
ROMANIA

# Contents

---

Foreword	1
FISITA, Welcomming message	2
SIAR, Welcomming message	4
Congress Committees	6
Congress Programme	9
Student Congress	23
Technical Visits	24
Exhibition	25
The City, the University	26
Map Guide	27
Information	28
Social Programme	3rd Cover

---

# Foreword



The automobile - miracle of the century - is a product of research and innovations in natural sciences and engineering. It is a synthesis of work in the fields of production technologies, manufacturing and assembly, materials engineering, computer science and information technology, design and marketing. It is developed in accordance with social and human values, the requirements of the clients, the culture and life-style of the local communities, urban demands, sustainable development and the protection of the environment.

The shaping of the traditional concepts and the functionality of the new automobile models, in the context of nowadays restructuring of this industry, is a challenge for specialists, researchers and automobile manufacturers. This process is characterized by: restructuring production capacities, renewing alliances, development of emergent markets, innovation in hybrid and electrical monitoring and an increase in competitiveness.

In this context, the eleventh INTERNATIONAL CONGRESS CONAT 2010 offers opportunities of evaluation and design of technical and scientific solutions, related to:

- The automobile of the future;
- The priorities of researchers in the domains of design, shaping and simulation;
- Alternative energy propulsion sources, in the context of sustainable development;
- New concepts and solutions for engines;
- New materials and technologies for manufacturing and assembly;

- Power electronics of the modern automobile;
- The perspectives of hybrid and electric technologies;
- Road and traffic safety and interaction with the environment;
- Creation of new competitiveness poles and strategic coalitions; the technical and scientific information, resulted from the more than 240 scientific communications, which are to be presented, as well as the conclusions of the debates of the five congress forums on the following topics:
  - Innovation in automotive industry;
  - Modern instrument-aided design;
  - Alternative fuels for automobiles;
  - Systems for the Management of the Road Safety in Romania;
  - Evolution in the Automotive and Transport Engineering;

Knowledge of road and traffic safety in the modern society will be useful in their future action and professional approach for the 400 specialists, engineers, research students and undergraduates (from 22 countries in Europe, America, Asia and Africa) who will take part in the congress.

Dedicated to the celebration of 61 years of existence of the Automotive Engineering study program in Brasov, and 20 years since the foundation of SIAR –Romanian Automotive Engineering Society and its joining FISTA, The CONAT Congress 2010, we strongly believe, will be the most important scientific event of 2010 for Romanian motorists, and not only.

The cultural atmosphere, the history, the traditions, the monuments, the museums and the social context that Brasov, a 775-year-old city, has to offer, will represent strong arguments for those choosing CONAT 2010 International Congress.

I wish you welcome.

A handwritten signature in blue ink that reads "Anghel Chiru". The signature is written in a cursive, flowing style.

**Anghel CHIRU,**  
CONAT Congress Chairman,

# FISITA Member Societies



Argentina (AITA)



Australasia (SAE-A)



Austria (ÖVK)



Belarus (AAA)



Belgium (UBIA)



Brazil (AEA)



China (SAE-C)



Croatia (HDMV)



Czech Republic (CAS)



Finland (SATL)



France (SIA)



Germany (VDI e.V. / FVT)



Hungary (GTE)



India (SAEINDIA)



Indonesia (IATO)



Iran (ISAE)



Israel (ISME-AS)



Italy (ATA)



Japan (JSAE)



Korea (KSAE)



Latvia (LAIA)



Lithuania (LAIS)



Poland (SIMP)



Romania (SIAR)



Russia (AEE)



Serbia (JUMV)



Slovak Republic (SAITS)



Slovenia (AMETS-AS)



Spain (STA)



Sri Lanka (IAE Sri Lanka)



Sweden (SVEA)



Switzerland (SAE Switzerland)



Thailand (TSAE)



The Netherlands - AD (KIVI NIRIA)



United Kingdom (IMechE)



United States (SAE International)



Vietnam (VSAE)

# Welcoming Message

Dear SIAR Members and Participants at the CONAT 2010 Congress in Brasov,

On behalf of FISITA, the umbrella organization of the worldwide national automotive engineer societies and EAEC, the European wing of FISITA, I would like to welcome you to the CONAT 2010 Congress. SIAR, the Romanian Society is an important member of our FISITA and EAEC Family. Romania has a long tradition in automotive production, research and education in many technical universities. Furthermore, Romanian engineers from industry, research and academia participate at international congresses as well as at national congresses of other societies and present their papers.

Now the automotive world has to reinvent itself in order to meet the challenges of a dramatically changing global automotive landscape. New regulations and consumer demands are influencing the development and marketability of innovations throughout the vehicle. First among these demands is fuel efficiency in connection with CO2 reduction as well as safety, responsible use of our resources, saving of energy, the reduction of dangerous emissions and traffic management.

Cars and trucks have played and will play an important role in the mobility of the society. Congresses like this offer ways or open discussions to face these challenges. We are entering the second decade of the new millennium and it is a momentous occasion for all of us in the automotive world to create and to support vehicles and transport systems for the future and for a better world.

I wish the organizers a successful congress and the participants an attractive programme full of interesting information and technological innovations.

**Brigadier ret. Prof. Guenter Hohl**  
FISITA Vice President Europe  
EAEC President  
Vice President OVK  
Austrian Society of Automotive Engineers



## SIAR BOARD

### President:

Prof. Dr. Eng. Eugen-Mihai NEGRUȘ.

### Vice-presidents:

Prof. Dr. Eng. Cristian ANDREESCU – Bucharest;

Prof. Dr. Eng. Anghel CHIRU – Brasov;

Prof. Dr. Eng. Victor OȚĂT – Craiova;

Prof. Dr. Eng. Ion TABACU - Pitesti ;

Prof. Dr. Eng. Nicolae BURNETE - Cluj-Napoca;

Assoc.Prof. Dr. Eng. Daniel IOZSA – Bucharest.

### General Secretary:

Dr. Eng. Cornel Armand VLADU.

### Regional Managers:

Prof. Dr. Eng. Cristian ANDREESCU - Bucharest;

Prof. Dr. Eng. Anghel CHIRU - Brasov;

Prof. Dr. Eng. Nicolae BURNETE - Cluj-Napoca ;

Prof. Dr. Eng. Laurentiu MANEA - Constanta;

Prof. Dr. Eng. Victor OȚĂT - Craiova;

Prof. Dr. Eng. Radu GAIGINSCHI - Iasi;

Prof. Dr. Eng. Ion TABACU - Pitesti;

Prof. Dr. Eng. Liviu MIHON - Timisoara;

Prof. Dr. Eng. Minu MITREA - ATM Bucharest.

## SIAR Editorial BOARD

### Chief Editor

Prof. Dr. Eng. Mircea OPREAN - Bucharest.

### Deputy Editors

Prof. Dr. Eng. Gheorghe-Alexandru RADU - Brasov;

Assoc.Prof. Dr. Eng. Ștefan TABACU - Pitesti.

# SIAR

## Who we are

SIAR is the professional organization of the Romanian automotive engineers, a corporate body, an independent and non-profit association, active member of FISITA (Federation Internationale des Societes d'Ingenieurs des Techniques de l'Automobile) and EAEC (European Automobile Engineers Cooperation).

## Objectives

- Engineering progress regarding construction, operating and vehicle maintenance fields.
- Developing automotive industry, transport and service technologies, supporting the transport and sellers activity, technical inspection and auto service activities;
- Encouraging youth to follow an automotive engineering career;
- Stimulating and managing activities promoting an environment suitable for continuous education and perfecting engineers' knowledge, active ideas and experience exchange, especially for students and young engineers;
- Collaborating with other technical and scientific organizations and/or organizing common activities;
- Improving relationships with the 35 FISITA societies.

Web Site: [www.siar.ro](http://www.siar.ro)

# Welcoming Message

I am happy to wish welcome, on SIAR behalf, to the participants at CONAT 2010.

Now, when a new century began, THE AUTOMOTIVE ENGINEERS SOCIETY IN ROMANIA ascertains once the wish of professional improvement of those who are the field of automotive.

The automotive, which is an important part of people's life as well as main force of economy, requires new strategies regarding the environment protection and traffic safety.

The settlement of these requirements needs special efforts of researchers and automotive manufacturers and their success will be guaranteed by obtaining information regarding the actual stage and improvement possibilities.



The CONAT 2010 Congress, which takes place in the era of globalization process of automotive industry, by the value of presented papers, by the presence of numerous participants from Romania and from abroad and by its possibilities to establish personal contacts and experience exchange, applies the FISITA motto „Let us progress together”.

Prof. Dr.Eng. Eugen Mihai NEGRUS,  
Executive President of SIAR

A handwritten signature in blue ink, reading "Eugen Mihai NEGRUS". The signature is written in a cursive style with a large, prominent initial 'E'.

# Congress Committees

## Congress Honorary Committee

### President of the Honorary Committee:

**Brigadier ret. Prof. Günter HOHL**

FISITA Vice President Europe

EAEC President

### Members

**Prof. Dr.Eng. Eugen Mihai NEGRUŞ**

SIAR President

**Dr. Peter PLEUS**

President of Schaeffler Group Automotive

**Dr. Constantin STROE**

DACIA-Groupe RENAULT Vice President

ACAROM President

**Wolfgang SCHNEIDER**

FORD-Europe Vice President

**Prof. Dr.Eng. Dragoş CIUPARU**

ANCS President

**Leslie HILL**

HORIBA Ltd. Manager, Global Product Planning

**Dr.Eng. Jan LEURIDAN**

LMS Executive Vice President and CTO

**Dr.Eng. Sorin BUŞE**

RTR General Manager

**Asoc. Prof. Dr. Eng. Corina SANDU**

Virginia Polytechnic Institute and State University

**Stefan KANYA**

AVL LIST GmbH Regional Manager

**Prof. Dr.Eng. Davide BIGONI**

ISIMM Italy

**Prof. Dr.Eng. Dinu TARAZA**

Wayne State University



# Organizing Committees

## EXECUTIVE ORGANISING BOARD

### Congress Chairman

Prof.Dr.Eng. **Anghel CHIRU**  
Dean - Faculty of Mechanical Engineering  
Vice-President SIAR

### Congress Vice-Chairmans

**Ian DICKIE**  
SAE Chief Executive

### Murly M. IYER

SAE International, Global Operation Manager

### Scientific & Technical Committee

#### President

Prof.Dr.Eng., Dr.h.c. **Gheorghe-Alexandru RADU**

#### Organising Committee Vice President

Prof.Dr.Eng., Dr.h.c. Habil **Cornel STAN**  
Director FTZ- Zwickau /Germany  
Prof.Dr.Eng. **Gheorghe CIOLAN**  
Head of Automotive Engineering Department

## CONGRESS COORDINATOR

Dr.Eng. **Dinu COVACIU**

## CONGRESS SECRETARIAT

Eng. Cosmin BORICEAN  
Eng. Ruxandra-Cristina DICA  
Dr.Eng. Calin HUSAR  
Eng. Liviu JELENSCHI  
Eng. Bogdan-Alexandru MUNTEAN  
Eng. Aron PETRIC  
Dr.Eng. Ioan-Şerban RADU  
Eng. Sorin SACAREANU  
Eng. Gabriel SANDU  
Ms. Rodica SIMA  
Eng. Ionut SOARE  
Eng. Cristian ŞOIMARU  
Dr.Eng. Mariana STANCIU  
Dr.Eng. Janos TIMAR

## SIAR Executive Officer

Dr.Eng. **Armand VLADU**

## ORGANISING COMMITTEE

Prof.Dr.Eng. Horia ABĂITĂNCEI  
Prof.Dr.Eng. Corneliu COFARU  
Prof.Dr.Eng. Valeriu ENACHE  
Prof.Dr.Eng. Natalia FILIP  
Prof.Dr.Eng. Daniela FLOREA  
Prof.Dr.Eng. Mircea NĂSTĂSOIU  
Prof.Dr.Eng. Ion PREDA  
Prof.Dr.Eng. Nicolae ȚUREA  
Assoc.Prof.Dr.Eng. Adrian ŞOICA  
Reader Eng. Bogdan BENEA  
Reader Dr.Eng. Mihai DOGARIU  
Reader Dr.Eng. Marin STĂNESCU  
Reader Eng. Dorin DUMITRAŞCU  
Reader Eng. Sebastian RADU  
Reader Dr.Eng. Stelian ȚĂRULESCU  
Assist Eng. Dragos DIMA  
Assist Eng. Viorel VULPE  
Assist.Dr.Eng. Daniel TRUSCĂ  
Assist.Dr.Eng. George TOGĂNEL

## SENIOR PROFESSORS, CONSULTANTS

Prof.Dr.Eng. Dan ABĂITĂNCEI  
Prof.Dr.Eng. Dr.h.c. Gheorghe BOBESCU  
Prof.Dr.Eng. Vasile CĂMPIAN  
Prof.Dr.Eng. Tiberiu NAGY  
Prof.Dr.Eng. Stelian NĂSTĂSOIU  
Prof.Dr.Eng. Nicolae SEITZ  
Prof.Dr.Eng. Cornel SĂLĂJAN

## STUDENT CONGRESS COMMITTEE

Eng. Alexandru BLEMOVICI  
Prof.Dr.Eng. Alexandru C. V. POPA  
Prof.Dr.Eng. Ovidiu CĂMPIAN  
Dr.Eng. Razvan ANCA  
Dr.Eng. Daniel BUZEA  
Stud. Ciprian PALTINISANU

## LOGISTICS & ORGANISATION

Prof.Dr.Eng. Nicolae ISPAS  
Dr.Eng. Vladimir MARDARESCU  
Eng. Marian HERMENEANU  
Ms. Luminita GOGHIE

# The Scientific and Technical Committee

President of the Scientific and Technical Committee: **Gheorghe Alexandru RADU**,  
Prof.Eng., Ph.D., Transilvania University of Brasov, Member of the Romanian Academy of Technical Sciences

## Section 1. Innovative Solutions for Automotive Vehicles

### Michael BARGENDE

Prof.Dr.Eng., Institutsleiter  
Forschungsinstitut für Kraftfahrwesen und  
Fahrzeugmotoren Stuttgart, Germany

### Cornel STAN

Prof. Dr.Eng.Dr.h.c., Habil, Director  
FTZ- Research and Technology Association at  
the West Saxon  
University of Zwickau, Germany

### Rodica BARANESCU

Dr.Eng., International Truck and Engine  
Corporation, Engine Group, USA  
Ex-president of SAE International

### Ulrich SPICHER

Dr.Eng.,Institutsleiter  
Universität Karlsruhe (TH), Institut für  
Kolbenmaschinen, Germany

### Dennis ASSANIS

Prof. Dr.Eng.,University of Michigan - Ann  
Arbor, College of Engineering, USA

### Peter ZIMA

Dr.Eng.,Senior Consultant  
R&D Enginesystem, Hofer Powertrain  
Germany

## Section 2. Automotive Vehicles and Environment

### Giovanni CIPOLLA

Prof. Dr.Eng.,Vice-President  
GM Powertrains Europe / Diesel Advanced  
Engineering & Hybrids, Italy

### Jean - Paul VILAIN

Prof. Dr.Eng.,  
Université de Technologie de Compiègne,  
Département Génie Mécanique, France

### Roger SIERENS

Prof. Dr.Eng.,  
Ghent University, Department of Flow,  
Heat and Combustion Mechanics , Belgium

### Hermann HOFBAUER

Prof. Dr.Eng.,Head- Chemical Process  
Engineering & Energy Technology  
Technische Universität Wien, Austria

### Dragos CIUPARU

Prof. Dr.Eng.,  
Univ. de Petrol si Gaze Ploiesti, Romania

### Ion VISA

Prof. Dr.Eng.,  
Rector  
Transilvania University of Brasov, Romania

## Section 3. Advanced Transport Systems and Road Traffic

### Habil Joachim KOERNER

Prof. Dr.Eng.-Oec., Westsächsische Hochschule  
Zwickau, Germany

### Abdellah EL MOUDNI

Prof. Dr.Eng.,Université de Technologie de  
Belfort-Montbéliard, Département Génie des  
Systèmes de Production, France

### Kwang Min CHUN

Dr., Head of Near Zero Emission Vehicle  
Research Center  
Yonsei University Korea /Korea

### Robert JOUMARD

Directeur, Recherche Pollution de l'air  
Institut National de Recherche sur les Transports  
et leur sécurité INRETS, France

### Serban RAICU

Prof. Dr.Eng.,Politechnic University of  
Bucharest, Romania

## Section 4. Advanced Engineering Methods

### Corina SANDU

Ph.D., Associate Professor  
Advanced Vehicle Dynamics Lab  
Virginia Tech College of Engineering, USA

### Kurt KIRSTEN

Dr.Eng., Vice President Research &  
Development Engine Systems Division  
Schaeffler Technologies GmbH & Co.KG,  
Germany

### Ioan TABACU

Prof. Dr.Eng.,University of Pitesti, Romania

### Nicolae ORLANDEA

Ph.D., Professor Mechanical Engineering  
University of Michigan College of Engineering,  
USA

### Eduard GOLOVATAI-SCHMIDT

Manager Advance Development Engine  
Systems, Schaeffler Technologies GmbH &  
Co.KG, Germany

### Jan LEURIDAN

Dr.Eng., Executive Vice-President & CTO  
LMS International /Belgium

## Section 5. Heavy and Special Vehicles

### Herman Van der AUWERAER

Dr., Corporate Director, R&D,  
LMS International, Belgium

### Cristian ANDREESCU

Prof. Dr.Eng.,Politechnic University of  
Bucharest, Romania

### Nicolae VASILIU

Prof. Dr.Eng., Politechnic University of  
Bucharest, Romania

## Section 6. New Materials, Manufacturing Technologies and Logistics

### Nicolae Victor ZAMFIR

Dr., Member of Romanian Academy  
National Institute of Physics and Nuclear  
Engineering, Romania

### Paul GUEMPEL

Prof. Dr.Eng., Chief of the Material Testing  
Laboratory, HTWG Konstanz, Germany

### Dinu TARAZA

Prof.Eng.,Ph.D., Wayne State University,  
Mechanical Engineering Department, USA

### Werner SCHMADERER

General Manager Supplier Quality Management  
BMW AG, Germany

### Nicolae BOICEA

Chief of Material Engineering Department  
Renault Technologie Roumanie, Romania

## Section 7. Accident Research and Analysis

### Carles GRASAS

Dr.Eng., Chief Executive Officer  
IDIADA Automotive Technology SA, Spain

### Radu GAIGINSCHI

Prof. Dr.Eng., Technical University "Gh.  
Asachi" Iasi, Romania

### Nicolae BURNETE

Prof. Dr.Eng.,Dean of Mechanical Faculty,  
Technical University of Cluj-Napoca,  
Romania

# Congress Committees

## Sections

### 1. Innovative Solutions for Automotive Vehicles

---

Coordinators:

Prof.Dr.Eng. Anghel CHIRU  
Prof.Dr.Eng. Horia ABAITANCEI

- *Advanced powertrain*
- *Chassis systems*
- *Transmission systems*
- *New solutions for vehicle body design*
- *Advanced electronics*
- *Comfort and Ergonomics*

### 3. Advanced Transport Systems and Road Traffic

---

Coordinators:

Prof.Dr.Eng. Daniela FLOREA  
Reader Dr.Eng. Marin STANESCU

- *Intelligent transport systems*
- *Advanced traffic control systems*
- *Systems for driver assistance*
- *Human and vehicle interface*
- *Traffic pollution and noise impact assessment*

### 5. Heavy and Special Vehicles

---

Coordinators:

Prof.Dr.Eng. Gheorghe CIOLAN  
Assoc.Prof.Dr.Eng. Adrian SOICA

- *Concept cars*
- *Race cars*
- *Buses, trucks and heavy vehicles*
- *Tractors, industrial and agricultural vehicles*
- *Working equipment*

### 7. Accident Research and Analysis

---

Coordinators:

Prof.Dr.Eng. Nicolae ISPAS  
Assist.Eng. Dragos DIMA

- *Traffic safety and accident statistics and analysis*
- *Traffic accident, tests and reconstruction*
- *Pedestrian and bikers protection*
- *Crashworthiness and biomechanics*

### 2. Automotive Vehicles and Environment

---

Coordinators:

Prof.Dr.Eng. Corneliu COFARU  
Prof.Dr.Eng. Mircea NASTASOIU

- *Reduction of gas emissions / chemical pollutants*
- *Vibration and noise reduction*
- *Hybrid and electrical vehicles*
- *Natural gas vehicles*
- *Alternative fuels*
- *Electromagnetic compatibility*
- *Renewable energy sources*

### 4. Advanced Engineering Methods

---

Coordinators:

Prof.Dr.Eng. Ion PREDA  
Prof.Dr.Eng. Ovidiu CÂMPIAN

- *Styling and aerodynamics*
- *Design for manufacturing and maintenance*
- *Simulation and testing for vehicle and components*
- *Vehicle dynamics*
- *Virtual reality*

### 6. New Materials, Manufacturing Technologies and Logistics

---

Coordinators:

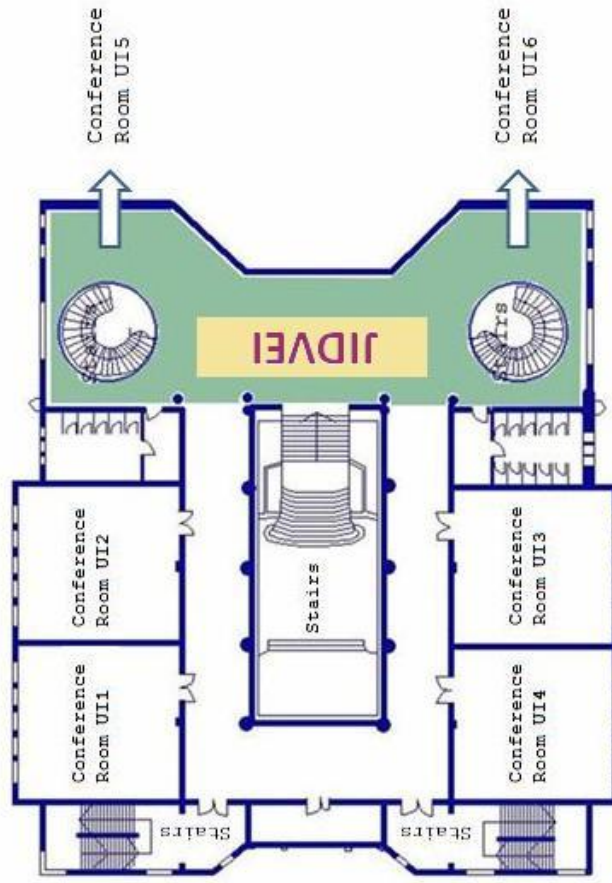
Prof.Dr.Eng. Nicolae TUREA  
Prof.Dr.Eng. Valeriu ENACHE

- *New materials*
- *Prototyping*
- *Manufacturing trends*
- *Quality, reliability and maintenance*
- *Lifecycle analysis*
- *Supplying chain and logistics*
- *Automotive Recycling*

# Schedule

Date/Time	Scheduled activities	Location	
<b>Tuesday 26 October</b>			
17:00 - 19:00	Registration	Transilvania University, Conference Center	
19:00 - 22:00	Welcome Reception	Ato-Palace Hotel	
<b>Wednesday 27 October</b>			
08:00 - 09:00	Registration	Transilvania University, Conference Center 41A, Iuliu Maniu St.	
09:00 - 10:30	Opening Ceremony		
10:30 - 11:00	Coffee Break		
11:00 - 13:00	Plenary Session 1		
13:00 - 14:30	Lunch Break		
14:30 - 16:30	Technical Sessions		
16:30 - 17:00	Coffee Break		
17:00 - 19:00	Technical Sessions	Schaeffler Evening	
19:00 - 22:00			
<b>Thursday 28 October</b>			
09:00 - 11:00	Technical Sessions	Transilvania University, Conference Center 41A, Iuliu Maniu St.	
11:00 - 11:30	Coffee Break		
11:30 - 13:00	Technical Sessions		
13:00 - 14:30	Lunch Break		
14:30 - 16:30	Technical Sessions		
16:30 - 17:00	Coffee Break		
17:00 - 18:30	Technical Sessions		
18:00 - 18:40	Organ Concert		
19:30 - 23:00	Gala Dinner		
			Black Church
		Restaurant "Cerbul Carpatin"	
<b>Friday 29 October</b>			
09:00 - 11:00	Technical Sessions	Transilvania University, Conference Center 41A, Iuliu Maniu St.	
11:00 - 11:30	Coffee Break		
11:30 - 13:00	Technical Sessions		
13:00 - 14:30	Lunch Break		
14:30 - 16:30	Technical Sessions		
16:30 - 18:30	Closing Ceremony		
			Workshop: Systems for the Management of the Road Safety in Romania
			Workshop: Evolution in the Automotive and Transport Engineering
			Workshop: Alternative fuels for automobiles
			Workshop: Computer Based Automotive Engineering

Hours / Room	UI1	UI2	UI3	UI4	UI5	UI6
27.10	S1.1	S2.1	S3.1	S4.1	S5.1	S6.1
	S1.2	S2.2	S3.2	S4.2	S6.2	S6.3
	S1.3	S2.3	S3.3	S4.3	S1.4	S5.2
28.10	S1.5	S2.4	S3.4	S4.4	S6.4	stud.1
	S1.7	S2.5	S7.1	S4.5	S1.6	stud.2
	S1.9	S2.6	S7.2	S4.6	S1.8	stud.3
29.10	S1.11	S2.7	S7.3	S4.7	S1.10	S6.5
	S1.13	S2.8	S2.9	S4.8	S1.12	S6.6
	S3.5	S6.7	S4.10	S4.9	S1.14	stud.4



Floor plan: First Floor

SECTIONS			
1. Innovative Solutions for Automotive Vehicles			
2. Automotive Vehicles and Environment			
3. Advanced Transport Systems and Road Traffic			
4. Advanced Engineering Methods			
5. Heavy and Special Vehicles			
6. New Materials, Manufacturing Technologies and Logistics			
7. Accident Research and Analysis			
Student			

# Opening Ceremony

27 October 2010, 9:00 – 10:30

- **Anghel CHIRU** – Congress Chairman
- **Günter HOHL** – FISITA Vice President Europe , EAEC President  
*FISITA and the Automotive World*
- **Peter PLEUS** – President of Schaeffler Group Automotive
  - **Constantin STROE** – ACAROM President
    - **Sorin BUȘE** – Renault Romania
    - **Eugen-Mihai NEGRUȘ** – SIAR President
- **Nadia CRIȘAN** – Director, Member of the Board of FORD România
  - **Ion VIȘA** – Rector of Transilvania University of Brasov  
*Education and Research for Sustainable Product Development  
in Transilvania University of Brasov*

# Plenary Session

27 October 2010, 11:00 - 13:00, the Conference Center of Transilvania University - AULA

**Chairman: Prof.Dr.Eng. Anghel CHIRU**

## Topics:

### **ELECTRIFICATION OF VEHICLE POWER TRANSMISSION - CHANCE OR RISK FOR THE CONVENTIONAL INTERNAL COMBUSTION ENGINE**

**Dr.-Ing. Kurt KIRSTEN**

Vice President Research & Development Engine Systems Division  
Schaeffler Technologies GmbH & Co.KG /Germany

### **DRIVING TO A LOW CO2 FUTURE**

**Prof.Dr.Eng. Giovanni CIPOLLA**

CTO & Engineering Director / GM Diesel Hybrid Center- Torino, Italy

### **NEW AGE PRODUCTION SYSTEM**

**Dr.Eng. Sorin BUSE**

General Manager, Renault Technologie Roumanie

### **AVL DRIVING HYBRIDIZATION**

**Stefan KANYA**

AVL - Regional Sales Manager

# Plenary Session – Innovation in Automotive Industry Forum ACAROM

27 October 2010, 14:30 - 19:00, the Conference Center of Transilvania University - AULA

## Chairmen:

**Dr.Eng. Constantin STROE – ACAROM President**

**Dr.Ing. Peter PLEUS**  
**President of Schaeffler Group Automotive**

**Prof.Dr.Eng.Ec. Corneliu COFARU**  
**Transilvania University of Brasov**

## Topics:

- **AUTOMOTIVE INDUSTRY'S RESPONSE TO THE PRESENT COMPETITIVITY AND DURABLE DEVELOPMENT CHALLENGES THROUGH INNOVATION:** Dr.Eng. **CONSTANTIN STROE** – ACAROM President
  - **RTR VISION ON PRODUCTION SYSTEMS:** DR.ENG. **SORIN BUSE**– GENERAL MANAGER RTR;
  - **ENVIRONMENTAL FRIENDLY INOVATIVE TECHNOLOGIES:** **NADIA CRISAN** – FORD ROMANIA;
- **SPECTROMAS PRODUCTS IN AUTOMOTIVE INDUSTRY-** **ADRIAN TANASESCU** – GENERAL MANAGER SPECTROMAS SRL;
  - **RANGE EXTENDER CONCEPT FOR MEGACITY DRIVING:** **ERIC RIOU** – KEY ACCOUNT MANAGER AVL;
  - **FUTURE TRENDS IN EXHAUST EMISSIONS AND FUEL ECONOMY LEGISLATION:** **LESLIE HILL** - HORIBA GMBH;
- **NVH SIMULATION AND SOURCE PATH CONTRIBUTION - SETTING THE TARGETS AND IMPLEMENTING THEM, WITH REDUCED TIME TO MARKET AND INCREASED RELIABILITY:** **SVEND GADE** - ASSOCIATE PROFESSOR AT BRUEL & KJAER UNIVERSITY;
- **MODEL BASED SYSTEM ENGINEERING – ENABLING NEXT GENERATION AUTOMOTIVE DEVELOPMENT:** **TONNY VANMUNSTER** - VICE-PRESIDENT RESEARCH&DEVELOPMENT LMS INTERNATIONAL;
- **CHALLENGES FOR HORIZONTAL AUTOMOTIVE INDUSTRY, ROMANIA:** **IONEL FIERBINTEANU** – GENERAL MANAGER AUTOLIV ROMANIA; **EDWIN ZACHARI**, GENERAL MANAGER JOHNSON CONTROLS; **SERGIU TOADER**, GENERAL MANAGER MAGIC SYSTEMS BRASOV; **SILVIU BADEA** – EXEC.DIR. GIC PITESTI, **GHEORGHE POPA** – GENERAL MANAGER COMPONENTE AUTO TOPOLOVENI; **NICOLAE MOVILEANU** – GENERAL MANAGER DELTA INVEST MIOVENI;
- **HOLISTIC APPROACH IN AUTOMOTIVE AND MECHANICAL DESIGN REQUIRES STRUCTURED BUT FLEXIBLE WORKFLOW MANAGEMENT:** DR.-ING **WILLI GRÜNDER**, TEDATA GMBH ; **STEFAN CASTRAVETE**, GENERAL MANAGER CAELINX CRAIOVA; **DAN NITESCU**, BMT 2004
- **HOW TO MEET THE CHALLENGES OF DEVELOPMENT AND TEST FOR INNOVATIVE AUTOMOTIVE ELECTRONICS:** **JÖRG VATER** - LEAD SALES MANAGER, NORTHERN GERMANY AND EUROPE, DSPACE GMBH;
  - **INOVATIONS IN THE AREA OF ELECTRIC AND ELECTRONICS EQUIPMENTS:** **CONSTANTIN ZAVARACHE** – GENERAL MANAGER ELECTROPRECIZIA SACELE; **GHEORGHE COCIAN** – GENERAL MANAGER ELBA TIMISOARA; **ION REPEDE** – GENERAL MANAGER ROMBAT;
  - **AUTOMOTIVE INDUSTRY LOGISTICS:** **CORINA AFENDULI** – GENERAL MANAGER UTI LOGISTICS BUCURESTI.

# List of papers

Speaker Paper Code Paper entitled:

## Section 1. Innovative Solutions for Automotive Vehicles

### S1.1 Advanced Powertrain 1, 27 October, 14:30 - 16:30, Room UI-1, Chairmen: Peter ZIMA, Nicolae NEGURESCU

Miroslav DEMIC	CONAT20101013	DRIVER MODEL DURING STRAIGHT LINE MOTION
Wladyslaw MITIANIEC	CONAT20101040	IMPROVEMENTS OF WORK PARAMETERS IN DIRECT INJECTED TWO-STROKE ENGINE
Silviu-Florian SARARU	CONAT20101004	DESIGNING AND MANUFACTURING A TEST BENCH FOR TESTING ENGINE VARIABLE VALVE TIMING SYSTEM ELECTROVALVES
Jens SCHAEFER	CONAT20101063	3CAM - CONTINUOUSLY VARIABLE CAM SHIFTING VALVE TRAIN

### S1.2 Advanced Powertrain 2, 27 October, 17:00 - 18:30, Room UI-1, Chairmen: Zeljko SAKOTA, Florian IVAN

Zeljko SAKOTA	CONAT20101016	NUMERICAL OPTIMIZATION OF VEHICLE DESIGN IN ORDER TO DECREASE FUEL CONSUMPTION AND EMISSION OF TOXIC GASES
Florian IVAN	CONAT20101010	RESEARCH ON THE EXHAUST GASES BACKPRESSURE EFFECT REGARDING THE FILLING AND THE DYNAMIC PERFORMANCES OF THE SPARK IGNITION ENGINES
Radu COSGAREA	CONAT20101043	THE INFLUENCE OF THE EGR RATE ON A HCCI ENGINE MODEL CALCULATED WITH THE SINGLE ZONE HCCI METHOD
Florian IVAN	CONAT20101072	WAYS OF IMPROVING THE PARTICLE FILTERS' PERFORMANCES USED IN DEPOLLUTING THE QUICK DIESEL ENGINES

### S1.3 Advanced Powertrain 3, 28 October, 9:00 - 11:00, Room UI-1, Chairmen: Eduard GOLOVATAI-SCHMIDT, Mircea OPREAN

Eduard GOLOVATAI-SCHMIDT	CONAT20101054	MODERN THERMAL MANAGEMENT FOR INTERNAL COMBUSTION ENGINES
Gabriela HUMINIC	CONAT20101068	EXPERIMENTAL INVESTIGATION OF THE HEAT PIPES HEAT EXCHANGERS
Gabriela HUMINIC	CONAT20101069	ENTROPY GENERATION ANALYSIS FOR ENERGETICALLY OPTIMIZATION OF COMBUSTION ENGINES RADIATORS
Wladyslaw MITIANIEC	CONAT20101002	DESIGN AND MODELING OF HEAT RECOVERY SYSTEM IN DIESEL PARTICULATE FILTER

### S1.4 Transmission Systems 2, 28 October, 9:00 - 11:00, Room UI-5, Chairmen: Eric RIOU, Hanna PETER

Horia ABAITANCEI	CONAT20101053	SONIC PROPULSION SYSTEM, AN OVERALL VIEW OF POSSIBLE SOLUTIONS
Sebastian RADU	CONAT20101050	THE SONIC ASYNCHRONOUS MOTOR FOR VEHICLE APPLICATIONS
Bogdan Ovidiu VARGA	CONAT20101033	AUTOMATIC GEARBOX TEST AND DIAGNOSIS ON A TEST-BED
Aron-Adrian PETRIC	CONAT20101020	IDENTIFYING THE FLOW PROCESSES IN HYDRAULIC CONVERTER AS PUMP WITH VARIABLE FLOW

### S1.5 Chassis systems, 28 October, 11:30 - 13:00, Room UI-1, Chairmen: Manfred KRAUS, Ion PREDA

Manfred KRAUS	CONAT20101062	SCHAEFLER IS MORE THAN JUST BEARINGS
Wladyslaw MITIANIEC	CONAT20101003	A NEW DESIGN OF TWO-STROKE ENGINE FOR AUTOMOTIVE APPLICATION
Ion VISA	CONAT20101073	MODELLING THE CAR WHEEL GUIDING MECHANISMS USING THE MULTIBODY SYSTEM METHOD
Cristina-Andreea MARC	CONAT20101034	ADVANCED ENGINEERING RESEARCH POSSIBILITIES USING THE ROLLER BRAKE TESTER AND DIAGNOSIS EQUIPMENTS

### S1.6 Advanced electronics, 28 October, 14:30 - 16:30, Room UI-5, Chairmen: Felician CAMPEAN, Nicolae NEGURESCU

Eugen-Mihai NEGRUS	CONAT20101038	INFORMATION SECURITY - THE DARK SIDE OF THE SMART CAR
Eugen-Mihai NEGRUS	CONAT20101039	HARDENING THE TRANSPORTATION SYSTEM INFORMATION SECURITY
Adrian NOVAC	CONAT20101008	METHOD TO DETERMINE THE SUPERCAPACITOR FEATURES IN ENGINE STARTING APPLICATION OF GROUND MOVING VEHICLES
Silviu-Florian SARARU	CONAT20101005	ACTUATING AND DATA ACQUISITION SYSTEMS USED IN CASE OF A TEST BENCH FOR TESTING ENGINE VARIABLE VALVE TIMING SYSTEM ELECTROVALVES

### S1.7 Transmission Systems 1, 28 October, 14:30 - 16:30, Room UI-1, Chairmen: Cristian ANDREESCU, Ioan-Calin ROSCA

Riccardo BARTOLOZZI	CONAT20101024	AUTOMATIC TRANSMISSION FOR SMALL DISPLACEMENT MOTOR-SCOOTERS
Vlad-Constantin SERBANESCU	CONAT20101045	THE VARIATION OF POWER OBTAINED BY SERIAL AND PARALLEL CONNECTION OF A SHOCK ABSORBER ENERGY RECOVERY SYSTEM INSTALLED ON A HYBRID HYDRAULIC VEHICLE
Mohamed IBRAHIM	CONAT20101056	SIMULATION MODELING, ASSESSMENT AND ENERGY MANAGEMENT OF THE INNOVATIVE CONCEPT OF SERIES HYDRAULIC HYBRID FOR PASSENGER CARS



Speaker	Paper Code	Paper entitled:
Hanna PETER	CONAT20101066	DEVELOPMENT AND IMPROVEMENTS OF THE DUAL MASS FLYWHEEL
<b>S1.8 Advanced Powertrain 7, 28 October, 17:00 - 18:30, Room UI-5, Chairmen: Cristian ANDREESCU, Mariana IVANESCU</b>		
Felician CAMPEAN	CONAT20101059	A MULTI-DISCIPLINARY DESIGN OPTIMISATION APPROACH TO CAM-PHASING OPTIMISATION
Felician CAMPEAN	CONAT20101058	EVALUATION OF Modelling TECHNIQUES FOR ENGINE RESPONSE MODELS
Cristian-Ioan LEAHU	CONAT20101018	IMPROVING ENERGETICAL AND ENVIRONMENTAL PERFORMANCE OF DIESEL ENGINES, BY THE EFFICIENCY SUPERCHARGE PROCESS
Dan-Spiridon DASCALESCU	CONAT20101009	A STUDY ABOUT FUEL CONSUMPTION AND SLIP VARIATIONS FOR VEHICLES WITH INTEGRAL TRACTION COMPARED WITH SINGLE AXLE TRACTION
<b>S1.9 Advanced Powertrain 4, 28 October, 17:00 - 18:30, Room UI-1, Chairmen: Razvan ANCA, Mircea NASTASOIU</b>		
Razvan ANCA	CONAT20101067	UNIAIR: FIRST VARIABLE ELECTRO-HYDRAULIC VALVE CONTROL SYSTEM IN MASS PRODUCTION
Cristian SOIMARU	CONAT20101080	DOES VARIABLE VALVE TIMING SYSTEM INFLUENCE THE INTERNAL COMBUSTION ENGINE'S PERFORMANCES?
Gabriel SANDU	CONAT20101011	MULTIBODY ANALYSIS OF THE FINGER FOLLOWER VALVETRAIN SYSTEM
Alexandru MUNTEAN	CONAT20101022	POSSIBILITIES TO IMPROVED HOMOGENEOUS CHARGE IN INTERNAL COMBUSTION ENGINES, USING C.F.D. PROGRAM
<b>S1.10 Confort&amp;Ergonomics, 29 October, 9:00 - 11:00, Room UI-5, Chairmen: Laurentiu MANEA, Gheorghe BACANU</b>		
Inbae CHANG	CONAT20101055	THE REMOTE MONITORING OF JOINT COORDINATES FOR COMFORT DUMMY IN A PASSENGER CAR USING 3-D VIDEO SURVEYING
Mariana IVANESCU	CONAT20101027	ANALYSIS OF THE THERMAL COMFORT IN VEHICLES
Catalin V. ZAHARIA	CONAT20101077	STATE OF THE ART IN THE ON-BOARD VEHICLE INDICATIONS FOR IMPROVING THE DRIVING STYLE
Catalin NEACSU	CONAT20101035	NUMERICAL SIMULATION OF AIR VELOCITY PROFILES INSIDE CAR CABIN
<b>S1.11 Advanced Powertrain 5, 29 October, 29.10, 9:00 - 11:00, Room UI-1, Chairmen: Karl-Nicolaus REGAR, Liviu MIHON</b>		
Karl-Nicolaus REGAR	CONAT20101046	DOWNSIZING ENGINES: TOP OR FLOP?
Mihaela COLDEA	CONAT20101041	NUMERICAL ANALYSIS OF HYDRAULIC VALVE ACTUATION ON INTERNAL COMBUSTION ENGINE INLET FLOW PERFORMANCES
Ionut-Tudor SOARE	CONAT20101026	FREE PISTON HYDRAULIC ENERGY GENERATOR USING THE STIRLING ENGINE PRINCIPLE
Horia ABAITANCEI	CONAT20101052	THE FREE PISTON ENGINE AS PRIME MOVER FOR CONVERTER BASED VEHICLE PROPULSION SYSTEMS
Mihai-Aurel CRISAN	CONAT20101075	ANALYSIS OF SOME OPERATING PARAMETERS OF S.I.E. FROM SEAT LEON IN DIFFERENT ROAD CONDITIONS USING A NEW TESTING TECHNOLOGY
<b>S1.12 Body Design-Advanced Powertrain, 29 October, 11:30 – 13:00, Room UI-5, Chairmen: Adrian TUSINEAN, Nicolae ISPAS</b>		
Laurentiu MANEA	CONAT20101071	CREATIVITY - A CHALLENGE FOR AUTOMOTIVE ENGINEERING STUDENT'S DEPARTMENT OF "OVIDIUS" UNIVERSITY CONSTANTA
Anghel HUMINIC	CONAT20101070	AUTOMOTIVE WING WITH COANDA EFFECT
Levente KOCISIS	CONAT20101036	REDESIGNING THE COMBUSTION CHAMBER OF A SI ENGINE IN ORDER TO HAVE OPTIMAL COMBUSTION PROCESS USING ALCOHOLS
Paul GRIGORE	CONAT20101017	KINEMATICS OF A VARIABLE COMPRESSION RATIO ENGINE
<b>S1.13 Advanced Powertrain 6, 29 October, 11:30 –13:00, Room UI-1, Chairmen: Cornel STAN, Horia ABAITANCEI</b>		
Cornel STAN	CONAT20101060	PROCESS OPTIMIZATION OF A HIGH-PERFORMANCE CAR DIESEL ENGINE BY CORRELATED COMPLEX MODELLING AND DIAGNOSTICS
Ioan TEBERAN	CONAT20101076	MAGNETIC FIELD EFFECT ON FUNCTIONAL PARAMETERS OF AN INTERNAL COMBUSTION ENGINE
Marius HIRCEAGA	CONAT20101001	A STUDY OF PARAMETERS INFLUENCING THE PERFORMANCE OF A PRESSURE WAVE SUPERCHARGER (PWS)
Cosmin-Constantin BORICEAN	CONAT20101015	ON THE EIGENVALUES AND VECTORS IN ROTORDYNAMICS WITH APPLICATIONS ON TURBOCHARGERS
<b>S1.14 Transmission Systems 3, 29 October, 14:30 – 16:00, Room UI-5, Chairmen: Eugen-Mihai NEGRUS, Gheorghe-Alexandru RADU</b>		
Adrian TUSINEAN	CONAT20101029	DEVELOPMENT OF A DI DIESEL COMBUSTION CHAMBER FOR A 100 MM OPPOSED PISTON ENGINE
Marius BATAUS	CONAT20101078	REAL TIME SIMULATION OF DRIVETRAIN LAUNCH DEVICES
Ilie DUMITRU	CONAT20101081	DESIGNING AND TESTING OF A GEARBOX CONTROL ELECTRONIC SYSTEM AS PART OF ELECTRONIC MANAGEMENT SYSTEM FOR DIESEL ENGINES
Nicolae ISPAS	CONAT20101079	CONTROLLING COMBUSTION IN HCCI DIESEL ENGINES

## Section 2. Automotive Vehicles and Environment

### S2.1 Natural gas vehicles, 27 October, 14:30 - 16:30, Room UI-2, Chairmen: Rajesh C. IYER, Constantin PANA

Rajesh C. IYER	CONAT20102039	COMPARATIVE EVALUATION OF ON-ROAD TESTS CONDUCTED ON A SI ENGINE TO RUN ON COMPRESSED NATURAL GAS
Fatih AYDIN	CONAT20102025	SEQUENTIAL LPG SYSTEMS AND INSTALLATION FAILURES IN GASOLINE VEHICLES

Speaker	Paper Code	Paper entitled:
Constantin PANA	CONAT20102010	LPG- ECOLOGICAL FUEL FOR AUTOMOTIVE DIESEL ENGINE
Gabriel-Petru ANTON	CONAT20102029	APPLICATION ON AN UPDATED FINITE ELEMENT MODEL OF AN ENGINE IN THE AUTOMOTIVE INDUSTRY
George-Liviu POPESCU	CONAT20102045	RESEARCH REGARDING THE POSSIBILITIES TO USE AS FUEL THE WASTE POLYETHYLENE
<b>S2.2 Alternative fuels 1, 27 October, 17:00 - 18:30, Room UI-2, Chairmen: Roger SIERENS, Corneliu COFARU</b>		
Sebastian VERHELST	CONAT20102002	ALTERNATIVE FUELS FOR ROAD TRANSPORT
Dragos TUTUNEA	CONAT20102055	A DETAILED STUDY REGARDING THE BIODIESEL MARKET AND PRODUCTION CAPACITIES IN ROMANIA
Rodica NICULESCU	CONAT20102053	IMPROVEMENT OF COLD STARTABILITY OF A BIODIESEL FUELLED ENGINE USING THE INJECTION OF VOLATILE SUBSTANCES IN THE INTAKE MANIFOLD
Doru BALDEAN	CONAT20102064	BIOFUELS - ALTERNATIVE ENERGY SOURCE IN ROMANIA
<b>S2.3 Reduction of gas emissions / chemical pollutants, 28 October, 09:00 - 11:00, Room UI-2, Chairmen: Miloslaw KOZAK, Florian IVAN</b>		
Miłosław KOZAK	CONAT20102051	THE INFLUENCE OF DIESEL FUEL AND RME BLENDS ON THE EXHAUST EMISSIONS FROM A PASSENGER CAR DIESEL ENGINE
Adrian BIRTAS	CONAT20102037	HYDROGEN ASSISTED COMBUSTION IN DIESEL ENGINE
Mihai ALEONTE	CONAT20102043	COMBUSTION AND EMISSIONS ANALYSIS OF DIFFERENT ALCOHOL BLENDS IN A TWO – STROKE SI ENGINE
Hasan AYDOGAN	CONAT20102005	EFFECTS OF E2, E20, E30 BIOETHANOL-GASOLINE BLENDS ON VEHICLE EMISSIONS AND PERFORMANCE
Liviu MIHON	CONAT20102021	IMPROVING PERFORMANCE OF A DIESEL-GAS ENGINE
<b>S2.4 Renewable energy sources 1, 28 October, 11:00 - 13:00, Room UI-2, Chairmen: Anca DUTA-CAPRA, Lucia DUMITRESCU</b>		
Hasan ÇELIKTEN	CONAT20102003	THE DETERMINATION OF SOME FUEL PROPERTIES FOR BIOETHANOL - GASOLINE MIXTURES
Luciana Diana CURSARU	CONAT20102004	EFFECTS OF METHYL ESTERS DERIVED FROM SUNFLOWER OIL ON LUBRICITY AND CORROSION OF DIESEL FUELS
Anca Capra DUTA	CONAT20102057	HOW SUSTAINABLE IS THE SUSTAINABLE TRANSPORTATION
Mihai COMSIT	CONAT20102058	TRENDS IN INTEGRATED PHOTOVOLTAIC SOLUTIONS FOR THE DESIGN OF NEW CARS GENERATION
Lucia DUMITRESCU	CONAT20102042	RECYCLING BIOMASS WASTE AS BIOETHANOL
<b>S2.5 Hybrid and electrical vehicles, 28 October, 14:30:00 - 16:30, Room UI-2, Chairmen: Giovanni CIPOLLA, Stanislaw SIENIUTYCZ</b>		
Stanislaw SIENIUTYCZ	CONAT20102038	THERMODYNAMIC ASPECTS OF FUEL CELL SYSTEMS
Danaiah PULI	CONAT20102015	DESIGN AND DEVELOPMENT OF A HYBRID PROTOTYPE CAR
Ana Maria PUSCAS	CONAT20102019	INTELLIGENT CONTROL SYSTEM USED FOR INCREASING THE ENERGY EFFICIENCY OF THE ELECTRIC VEHICLES - REDUCED SCALE MODEL -
Bogdan BENEÄ	CONAT20102062	A BRIEF DISCUSSION ON BIOFUEL PRODUCTION
<b>S2.6 Alternative fuels 2, 28 October, 17:00 - 18:30, Room UI-2, Chairmen: Joerg NEUGAERTNER, Adrian CLENCI</b>		
Joerg NEUGAERTNER	CONAT20102033	TREND ANALYSIS OF THE WORLDWIDE FUEL QUALITIES AND IMPACT ON ENGINE SYSTEM DEVELOPMENT
István BARABAS	CONAT20102032	RAPID FUEL PROPERTIES ESTIMATION THROUGH CHEMOMETRIC MODELING OF NIR SPECTRA
A. Engin OZCELIK	CONAT20102028	INVESTIGATION OF THE EFFECTS OF DIESEL FUEL, RAPESEED OIL AND COTTON OIL METHYL ESTERS ON THE PERFORMANCE OF A TURBOCHARGED DIESEL ENGINE
Cristina MARC	CONAT20102030	STUDY OF THE AUTOMOTIVE FUEL AND OIL POLLUTION INFLUENCES UPON SOME PLANTS IN DIFFERENT CONDITIONS
<b>S2.7 Vibration and noise reduction, 29 October, 09:00 - 11:00, Room UI-2, Chairmen: Nicusor DRAGAN, Ioan Calin ROSCA</b>		
Nicolae FILIP	CONAT20102040	ABOUT THE ACOUSTIC ENERGY RECOVERED FROM INTERNAL COMBUSTION ENGINE EXHAUST GASES NOISE
Polidor BRATU	CONAT20102034	EXPERIMENTAL STUDIES OF SOUND ABSORPTION COEFFICIENT OF COMPOSITE MATERIALS USED FOR ACOUSTIC TREATMENTS OF THE CABINS
Polidor BRATU	CONAT20102035	DYNAMIC MODELLING OF THE RESPONSE OF THE VIADUCT SUBJECTED ON TRAFFIC ACTIONS - MODAL CALCULUS
Polidor BRATU	CONAT20102036	EXPERIMENTAL ANALYSE OF THE SHOCKS BETWEEN THE TYRES OF THE MOBILE EQUIPMENT AND THE REINFORCED CONCRETE BRIDGES
Vladimir MARDARESCU	CONAT20102065	DESIGN OF AN AIR COOLED CYLINDER HEAD FOR TWO FAMILYS OF DIESEL ENGINES WITH DIRECT INJECTION
<b>S2.8 Renewable energy sources 2, 29 October, 11:30 - 13:00, Room UI-2, Chairmen: Gh.AL. RADU, Nicolae BURNETE</b>		
Ruxandra-Cristina (DICA) STANESCU	CONAT20102012	ALGAE – ENERGY SOURCE OF THE FUTURE IN THE AUTOMOTIVE SECTOR
Ioana MOLDOVEANU	CONAT20102041	COMPARATIVE STUDY OF ALTERNATIV RENEWABLE ENERGIES
Anghel CHIRU	CONAT20102006	STUDY ON PHYSICO-CHEMICAL PROPERTIES OF ALTERNATIVE FUELS
Ali ÖZULUYOL	CONAT20102022	THE INFLUENCE OF OXIDATION ADDITIVES TO THE FUEL PROPERTIES IN COTTONSEED OIL MTHYL ESTER

Speaker	Paper Code	Paper entitled:
<b>S2.9 Alternative fuels 3, 29 October, 11:30 - 13:00, Room UI-3, Chairmen: Nicolae ISPAS, Laurentiu MANEA</b>		
Andreas ELLENSCHLAGER	CONAT20102056	METHOD FOR BUILD UP AND DESCRIPTION OF THE EFFECT OF FUEL DEPOSITS BY BIODIESEL ON INJECTORS
Dinu FODOR	CONAT20102063	THE BURNING OF LEAN MIXTURES IN SPARK IGNITION DIRECT INJECTION ENGINES
Doru BALDEAN	CONAT20102060	STUDY OF DIESEL FUEL COMBUSTION PROCESS USING ADVANCED SYMULATION METHODS
Dinel POPA	CONAT20102026	THE STUDY OF FUEL MIXTURE IGNITION IN INTERNAL COMBUSTION ENGINES BY UNCONVENTIONAL METHODS

### Section 3. Advanced Transport Systems and Road Traffic

#### S3.1 Traffic Pollution and Noise, 27 October, 14:30 - 16:30, Room UI-3, Chairmen: Alexandru BOROIU, Nicolae ISPAS

Alexandru BOROIU	CONAT3013	SETTING OF THE STRATEGIC OBJECTIVES OF THE COUNTY PUBLIC TRANSPORT BASED ON POPULATION MOBILITY AND ON CAPACITY OF TRANSPORTATION OPERATORS
Claudiu-Ion MIJA	CONAT3027	EVOLUTION OF ROAD TRAFFIC IMPACT ON AIR QUALITY IN BUCHAREST CENTRAL AREA
Stelian TARULESCU	CONAT3018	CHEMICAL POLLUTION PRODUCED BY THE HEAVY VEHICLES IN URBAN AREAS
Stelian TARULESCU	CONAT3017	ROAD TRAFFIC CHEMICAL POLLUTION MODELING SYSTEM

#### S3.2 Intelligent Transport Systems, 27 October, 17:00 - 18:30, Room UI-3, Chairmen: Nicolae FILIP, Gheorghe CIOLAN

Nicolae FILIP	CONAT3014	VEHICLES IDENTIFICATION AND CLASSIFICATION WITH LASER WAVES
Sorin ILIE	CONAT3011	THE OPTIMIZATION OF PUBLIC TRANSPORT SYSTEM OF THE SOUTH-EAST AREA OF OLT COUNTY
Gabriela MITREAN	CONAT3012	TRANSPORT DEMAND MODELING FOR OPTIMIZING A COUNTY PUBLIC TRANSPORT SYSTEM
Corneliu Mihail ALEXANDRESCU	CONAT3006	USING MULTI-SENSOR FUSION AND DIGITAL MAPS FOR DRIVER ASSISTANCE SYSTEMS

#### S3.3 Traffic Pollution and Noise 2, 28 October, 09:00 - 11:00, Room UI-3, Chairmen: Sorin-Constantin ZAMFIRA, Dana MOTOC

Ciprian PIRNA	CONAT3015	PRECISION LAYERED MAPPING SYSTEM FOR POLLUTION CONCENTRATION IN THE AUTOMOTIVE FIELD
George TACHE	CONAT3016	OPTIMIZATION OF THE CALCULATION PARAMETERS FOR STREET NOISE MAPPING IN LIMA MAPPING SOFTWARE
Mariana STANCIU	CONAT3020	EVALUATION OF ACOUSTIC PROPERTIES OF COMPOSITE MATERIALS WITH POTENTIAL APPLICATION IN THE SOUND BARRIERS STRUCTURES
Covaciu DINU	CONAT3001	ANALYSIS OF A DRIVING CYCLE PROPOSED FOR BRASOV CITY

#### S3.4 Intelligent Transport Systems 2, 28 October, 11:00 - 13:00, Room UI-3, Chairmen: Zoltan FAZEKAS, Costel BEJAN

Singh TEJINDER	CONAT3026	ALTERNATE TRANSPORT SYSTEM USING MAGNETICS
Zoltan FAZEKAS	CONAT3025	VISUALISATION AND SAFETY EVALUATION OF TRUCK ROUTE AND BRAKING DATA
Costel BEJAN	CONAT3022	PASSENGER CAR DIMENSIONAL STATISTICS RELATED TO OPTIMAL PARKING SPACE
Constantin ZAMFIRA	CONAT3010	SENSORS AND ALGORITHMS FOR LINE TRACKING IN MOBILE ROBOTS NAVIGATION

#### S3.5 Traffic Pollution and Noise 3, 29 October, 14:30 - 16:30, Room UI-3, Chairmen: Daniela FLOREA, Nicolae FILIP

Cristina MANEA	CONAT3024	MINIMIZING DISTRIBUTION COSTS –DIRECT VERSUS INTERMEDIATE-PLATFORM TRANSPORT
Marius LUCULESCU	CONAT3031	DIGITAL SYSTEM FOR MONITORING AND MANAGEMENT OF INDIVIDUAL OR FLEET AUTOMOTIVE VEHICLES
Janos TIMAR	CONAT3030	OPTIMIZATION METHODS REGARDING THE BUILDING TRANSFER IN LIMA SOFTWARE

### Section 4. Advanced Engineering Methods

#### S4.1 Design for manufacturing and maintenance, 27 October, 14:30 - 16:30, Room UI-4, Chairmen: Klaus FELDNER, Horia ABAITANCEI

Dumitru NICOARA	CONAT20104007	ON THE DESIGN AND CONTROL OF ACTIVE VEHICLE SUSPENSION. THE DUAL OBJECTIV ANALYSIS
Ferencz PETI	CONAT20104022	STUDIES CONCERNING THE INFLUENCE OF THE HIGH PRESSURE DIE CASTING PROCESS PARAMETERS TO THE STRUCTURAL RESISTANCE OF PINION HOUSINGS
Cristina HOFFMANN	CONAT20104024	A NEW TEST METHOD FOR STAINLESS STEELS USED IN AUTOMOTIVE EXHAUST SYSTEMS
Klaus FELDNER	CONAT20104044	ANALYSING WEAR PROBLEMS OF HYDRAULIC LASH ADJUSTERS BY USING THE RNT-METHOD

#### S4.2 Simulation and testing, 27 October, 17:00 - 18:30, Room UI-4, Chairmen: Adolfo SENATORE, Dumitru NICOARA

Dario BUONO	CONAT20104002	A SIMULATION MODEL OF AN ENGINE MOTORBIKE LUBRICATION CIRCUIT
Florin-Constantin OLOERIU	CONAT20104003	STUDYING HOW THE VEHICLE'S ENGINE OPERATES USING MULTIVARIABLE PROCEDURES
Ervin ADOREAN	CONAT20104005	DIESEL ENGINE IN-CYLINDER CALCULATIONS WITH OPENFOAM
Csaba BLAGA	CONAT20104009	SIMULATION OF THE PERFORMANCE CURVE OF AN ALTERNATOR

#### S4.3 Simulation and testing 2, 28 October, 09:00 - 11:00, Room UI-4, Chairmen: Willi GRUENDER, Nicolae VASILIU

Ion PREDA	CONAT20104030	COAST DOWN TEST - THEORETICAL AND EXPERIMENTAL APPROACH
Marius NEGRU	CONAT20104025	IMPACT STUDY OF THE DOUBLE-SEATED SLED ASSEMBLY PROTOTYPE

Speaker	Paper Code	Paper entitled:
Murat HOSOZ	CONAT20104046	EXPERIMENTAL PERFORMANCE OF AN AUTOMOTIVE HEAT PUMP SYSTEM FOR VARIOUS HEAT SOURCES
Mihaela BARITZ	CONAT20104040	ACTIVE/PASSIVE ANSWERS DEVELOPED IN HUMAN SUBJECT HANDS DURING AUTOMOTIVE DRIVING
<b>S4.4 Simulation and testing 3, 28 October, 11:30 - 13:00, Room UI-4, Chairmen: Cristoph BRANDS, Ioan SZAVA</b>		
Csaba BLAGA	CONAT20104017	SIMULATION OF PERFORMANCE CURVES FOR STARTERS
Marian OANA	CONAT20104045	USAGE OF THE EMPIRIC MODELS FOR COMPARATIVE ASSESMENT OF THE VEHICLES MOBILITY
Liviu MIHON	CONAT20104023	THE MODELING OF A MOTOR VEHICLE BEHAVIOUR USING SPECIALIZED SOFTWARES
Ioan DAMIAN	CONAT20104034	ICE MODEL USED IN AN INDOOR TESTING BENCH FOR HYBRID STRUCTURES
<b>S4.5 Virtual reality, 28 October, 14:30 - 16:30, Room UI-4, Chairmen: Corina SANDU, Ion TABACU</b>		
Filip GORSKI	CONAT20104008	APPLICATION OF VIRTUAL REALITY TECHNIQUES IN WORKPLACE DESIGN PROCESS ON EXAMPLE OF STUD WELDING
Corina SANDU	CONAT20104029	A 3D SEMI-EMPIRICAL STOCHASTIC TIRE MODEL ON HARD, FLAT, AND UNEVEN SURFACES
George GHERGHINA	CONAT20104031	MECHATRONIC SYSTEMS: AUTOMOTIVE APPLICATIONS AND MODERN DESIGN METHODOLOGIES IN UNIVERSITIES
Christoph BRANDS	CONAT20104042	VIRTUAL PRODUCT DEVELOPMENT PROCESS FOR ROBUST COMPONENTS AND SYSTEMS
Cristi IRIMIA	CONAT20104014	THE INVESTIGATION OF THE STRUCTURE BORNE ROAD NOISE IN THE CAR USING THE PRINCIPAL COMPONENT ANALYSIS
<b>S4.6 Simulation and testing 4, 28 October, 17:00 - 18:30, Room UI-4, Chairmen: Gheorghe CIOLAN, Liviu MIHON</b>		
Cristi IRIMIA	CONAT20104015	ENGINE COMBUSTION MODELING FROM DESIGN TO CONTROL
Cristi IRIMIA	CONAT20104016	IMPROVING ENERGY CONSUMPTION THROUGH A FULL VEHICLE ENERGY MODELING APPROACH
Marian BRABETE	CONAT20104026	STUDY ON STRATEGY FOR REMOVING ALL THE UNWANTED FREQUENCIES PROVIDED BY KNOCK SENSOR COEFFICIENT
Nicolae-Doru STANESCU	CONAT20104028	ON THE NON-LINEAR VIBRATIONS OF THE AUTOMOBILES
Marin MARINESCU	CONAT20104038	GENERALIZED MODEL OF THE PRESSURE EVOLUTION WITHIN THE BRAKING SYSTEM OF A VEHICLE
<b>S4.7 Vehicle dynamics, 29 October, 09:00 - 11:00, Room UI-4, Chairmen: Ion PREDA, Horia BELES</b>		
Ioan PREDA	CONAT20104030	COAST DOWN TEST – THEORETICAL AND EXPERIMENTAL APPROACH
Julian ROTHFUSS	CONAT20104001	TRANSFERRING ENDURANCE TESTS FROM THE ROAD TO A DYNAMOMETER IN ORDER TO REDUCE TESTING TIME AND EFFORT
Faried HASBULLAH	CONAT20104051	ASSESSMENT OF RIDE QUALITY OF TWO AND THREE-AXLES OFF-ROAD VEHICLES WITH ACTIVE SUSPENSION USING HALF-CAR MODELS
Horia BELES	CONAT20104061	THEORETICAL AND EXPERIMENTAL RESEARCH REGARDING THE BRAKING PERFORMANCES OF THE PASSENGER CARS, IN CONCORDANCE WITH THE IMPROVEMENT OF ACTIVE SAFETY AND THE REDUCTION OF ACCIDENTS WITH SEVERE CONSEQUENCES
Venetia SANDU	CONAT20104052	TESTING PROCEDURE FOR AUTOMOTIVE HYDRAULIC CYLINDERS
<b>S4.8 Vehicle dynamics &amp; Virtual Reality, 29 October, 11:30 - 13:00, Room UI-4, Chairmen: Michael BUTSCH, Horia BELES</b>		
Stefan TABACU	CONAT20104019	DEVELOPMENT AND VALIDATION OF A FINITE ELEMENTS HUMAN HEAD MODEL FOR IMPACT APPLICATIONS
Ovidiu-Cosmin SIMIONESCU	CONAT20104063	DETERMINATION OF CONTACT FORCE OF A SPUR GEAR ASSEMBLY BY FINITE ELEMENT METHOD
Dumitru NEAGOE	CONAT20104059	THEORETICAL AND EXPERIMENTAL RESEARCH ON THE TORQUE VARIATION OF THE BODY PASSING THROUGH LANDMARKS
Loreta SIMNICEANU	CONAT20104058	KINEMATICS RELATIONS USED IN MATHEMATICAL MODELLING OF AUTOMOTIVE'S MOVEMENT
Radu VILAU	CONAT20104039	CONSIDERATIONS REGARDING THE STUDY OF THE DYNAMIC PERFORMANCE OF VEHICLE BRAKING SYSTEMS
<b>S4.9 Simulation and testing5, 29 October, 14:30 - 16:30, Room UI-4, Chairmen: Mihaela BARITZ, Sorin VLASE</b>		
Sorin VLASE	CONAT20104054	PROPERTIES OF A SYMMETRICAL MECHANICAL SYSTEM USED TO THE VIBRATIONS ANALYSIS OF A TRUCK WITH TWO IDENTICAL ENGINES
Venetia SANDU	CONAT20104053	THERMAL ADJUSTMENT OF COOLING SYSTEMS IN COMMERCIAL DIESEL ENGINES
Mihaela BARITZ	CONAT20104041	PEDESTRIAN BIOMECHANICAL BEHAVIOR UNDER VISUAL AND AUDIO STIMULI
Mihaela BARITZ	CONAT20104040	ACTIVE/PASSIVE ANSWERS DEVELOPED IN HUMAN SUBJECT HANDS DURING AUTOMOTIVE DRIVING
Doru BALDEAN	CONAT20104060	STUDIES CONCERNING EXHAUST GASES DYNAMICS FOR AN IC ENGINE THROUGH SIMULATION
<b>S4.10 Design for manufacturing and maintenance, 28 October, 14:30 - 16:30, Room UI-3, Chairmen: Luciana CRISTEA, Viorel SISMAN</b>		
Viorel SISMAN	CONAT20104055	NEW TOOL TO ASSIST THE STYLING DESIGN OF A NEW CAR
Ionel VIERU	CONAT20104049	STUDY ON THE CONSTRUCTIVE OPTIMIZATION OF THE CAR RIM
Raluca MOISESCU	CONAT20104062	FINITE ELEMENT ANALYSIS OF TRUCK TYRE MODAL BEHAVIOUR
Doru BALDEAN	CONAT20104056	RESEARCHES CONCERNING THE BRAKING FORCE UNBALANCE OF TOYOTA AVENSIS ON THE TEST BED

## Section 5. Heavy and Special Vehicles

### S5.1 Heavy and special vehicles, 27 October, 14:30 - 16:30, Room UI-5, Chairmen: Wojciech MAREK, Ticusor CIOBOTARU

Venetia SANDU	CONAT20105001	TEST BENCH EVALUATION OF HEAVY VEHICLE SUPPLEMENTARY BRAKE SYSTEMS
Ticusor CIOBOTARU	CONAT20105002	ACCELERATION PROCESS OF THE TRACKED VEHICLE WITH HYDRODYNAMIC TRANSMISSION
Ticusor CIOBOTARU	CONAT20105003	STATISTICAL CHARACTERISTICS OF THE TRUCKS BRAKING IN REAL TRAFFIC
Dinel POPA	CONAT20105004	CONSIDERATIONS REGARDING MATHEMATICAL PROCESSING OF EXPERIMENTAL DATA OBTAINED ON SPECIFIC WAYS IN CONSTRUCTION SITES
Wojciech MAREK	CONAT20105005	FLEXIBLE FUEL ENGINE BASED ON PNEUMATIC FUEL INJECTION BY MEANS OF HOT EXHAUST GASES

### S5.2 Tractors, industrial and agricultural vehicles, 27 October, 17:00 - 18:30, Room UI-6, Chairmen: Nicolae VASILIU, Vasile PADUREANU

Adrian COJAN	CONAT20105009	THE ANTI-OSCILLATIONS SYSTEM FOR TRAILERS WITH 2 TURNING AXLES
Mircea NASTASOIU	CONAT20105010	RESEARCHES ON THE DIMENSIONAL SYNTHESIS OF THE THREE-POINT HITCH COUPLERS USED AT AGRICULTURAL TRACTORS
Lilian VASILACHE	CONAT20105011	RESEARCHES ON THE MATHEMATICAL MODELING OF THE KINEMATICS OF THREE-POINT HITCH COUPLERS USED AT AGRICULTURAL TRACTORS
Augustin CONSTANTINESCU	CONAT20105012	THEORETICAL RESEARCH ON THE DYNAMICS OF WORKING PARTS AGGREGATE COMBINED PREPARATION FOR GERMINATIVE BED - ACPG-3
Simion POPESCU	CONAT20105013	DEVELOPMENT AND EXPERIMENTAL RESEARCH OF THE CENTRAL PRESSURE CONTROL SYSTEM FOR AGRICULTURAL TRACTOR TYRES

## Section 6. New Materials, Manufacturing Technologies and Logistics

### S6.1 New materials, 27 October, 14:30 - 16:30, Room UI-6, Chairmen: Nicolae BOICEA, Simona LACHE

Nicolae BOICEA	CONAT20106012	ANEW APPROACH FOR IMPROVING THE LIFETIME OF SOME PARTS MADE OF CAST IRON, USING SUPERFICIAL TREATMENTS
Milan MILOVANOVIĆ	CONAT20106001	INVESTIGATION OF EFFECTS OF PASSENGER CAR BODY RECONSTRUCION
Adrian GLIGOR	CONAT20106004	NEXT GENERATION FUEL SYSTEM (NGFS)
Thomas W. HEITZ	CONAT20106032	ANALYSIS OF USING CFK-MATERIAL FOR STEERING COLUMNS COMPONENTS IN PASSENGER VEHICLES

### S6.2 New materials 2, 27 October, 17:00 - 18:30, Room UI-5, Chairmen: Ioan CURTU, Dana LUCA-MOTOC

Dana MOTOC-LUCA	CONAT20106026	DEVELOPING AND CHARACTERIZING NEW MULTIPHASE COMPOSITE MATERIALS FOR AUTOMOTIVE BRAKE
Dana MOTOC-LUCA	CONAT20106027	PREDICTING, MEASURING AND TAILORING ELECTRICAL PROPERTIES FOR NEW COMPOSITE MATERIALS USED IN AUTOMOTIVE SENSORS
Gianina Ileana STAN	CONAT20106005	SOUND PROPAGATION IN COMPOSITE PLATES USED IN THE CONSTRUCTION OF STREET SOUNDPROOFING PANELS
Ovidiu Mihai TERCIU	CONAT20106006	LIGNOCELLULOSIC COMPOSITES FOR AUTOMOTIVE INDUSTRY

### S6.3 Quality, reliability and maintenance, 27 October, 17:00 - 18:30, Room UI-6, Chairmen: Felician CAMPEAN, Adrian POSTELNICU

Tiberiu BUCUR	CONAT20106023	CONSIDERATIONS REGARDING THE INFLUENCE OF MAINTENANCE SYSTEMS
Natalia FILIP	CONAT20106024	QUALITY MANAGEMENT BETWEEN PAST AND PRESENT
Felician CAMPEAN	CONAT20106025	FAILURE MODE AVOIDANCE PARADIGM IN AUTOMOTIVE ENGINEERING DESIGN
Horia Marcel SOTOC	CONAT20106033	ORGANIZING THE SELECTION OF THE PRIMARY DATA REGARDING THE BREAKEDOWN FLUX FOR AN AUTOVEHICLE'S STEERING GEAR, IN ORDER TO EVALUATE THE RELIABILITY INDICATORS

### S6.4 Supplying chain and logistic & Lifecycle analysis, 28 October, 11:30 - 13:00, Room UI-5, Chairmen: Camelia CERBU, Cornel ARAMA

Cornel ARAMĂ	CONAT20106017	IMPLICATIONS INTO THE CIVIL FIELD OF BASIC NCW (NETWORK CENTRIC WARFARE) PRINCIPLES FOR PROVIDING LOGISTICAL ARMORED MILITARY EQUIPMENT
Cornel ARAMĂ	CONAT20106018	SETTING UP THE "CLUSTER" NETWORKS AND PERSPECTIVES ON MODULARIZATION OF THE AUTOMOTIVE INDUSTRY
Bogdan TURTURICA	CONAT20106002	LIFE PREDICTIONS AND COMPONENT FATIGUE BEHAVIORS OF A STEERING KNUCKLE USING FINITE ELEMENT ANALYSIS
Corneliu Catalin PONTA	CONAT20106010	RADIATION PROCESSING FOR AUTOMOTIVE INDUSTRY

### S6.5 New Materials & Manufacturing trends, 29 October, 09:00 - 11:00, Room UI-6, Chairmen: Mihai-Sorin ADAM, Horatiu TEODORESCU

Mihai Sorin ADAM	CONAT20106030	ADVANCED THERMOELECTRIC MATERIALS USED FOR HEAT RECOVERY
Bebe TICA	CONAT20106029	SPLINTERS ANALYSIS FORM RESULTS IN THE VIBROSPLINTERING SUPERHARDS CARBIDE STEELS
Bebe TICA	CONAT20106028	TOOL WEAR AND DURABILITY OF STEEL TO CARBIDE ULTRASONIC VIBROSPLINTERING
Gheorghe BEJINARU-MIHO	CONAT20106034	AN OVERVIEW UPON THE RESIDUAL STRESS PRODUCED BY THE METAL CUTTING OF THE AUTOMOTIVE COMPONENTS

### S6.6 Manufacturing trends & Prototyping, 29 October, 11:30 - 13:00, Room UI-6, Chairmen: Valeriu ENACHE, Nicolae TUREA

Gheorghe BEJINARU-MIHO	CONAT20106035	THE MACHINE TOOL KINETIC ERRORS INFLUENCE UPON THE PRECISION OF THE SHAPED GEARS USED IN THE VEHICLE MOTORS CONSTRUCTION
------------------------	---------------	--

Speaker	Paper Code	Paper entitled:
Daniel-Constantin ANGHEL	CONAT20106013	STUDY OF THE IMPACT OF THE RAPID PROTOTYPING METHOD ON THE PERFORMANCES OF A DESIGN PROCESS
Nadia BELU	CONAT20106014	APPLYING FUNCTIONAL ANALYSIS IN DESIGN STAGE OF A AUTOMOTIVE PART
Valeriu ENACHE	CONAT20106036	SOME RESULTS CONCERNING ON THE MECHANICAL PROPERTIES EVALUATION OF THE CYLINDER-HEAD GASKET MATERIALS
<b>S6.7 Manufacturing trends, 29 October, 14:30 - 16:30, Room UI-6, Chairmen: Zygmunt MUCHA, Constantin Al. POPA</b>		
Laurențiu-Aurel MIHAIL	CONAT20106007	THE INCIDENCE OF THE QUALITY MANAGEMENT PRINCIPLES IN THE SUPPLIER'S QUALITY MANAGEMENT SYSTEMS FROM THE AUTOMOTIVE SECTOR
Laurențiu-Aurel MIHAIL	CONAT20106008	AN ALTERNATIVE FOR 8D PROBLEM SOLVING METHOD DURING PRODUCT DEVELOPMENT PROCESS
Zygmunt MUCHA	CONAT20106021	NON CONTACT LASER FORMING OF CONSTRUCTION BARS
S.M. PEYGHAMBARZADEH	CONAT20106022	APPLICATION OF NANO-FLUID TO IMPROVE HEAT TRANSFER IN THE RADIATOR OF AUTOMOBILE ENGINE

## Section 7. Accident Research and Analysis

### S7.1 Traffic safety and accident statistics and analysis, 28 October, 14:30 - 16:30, Room UI-3, Chairmen: Anton BRUNNER, Nicolae TUREA

Faisal AMIN	CONAT20107001	ANALYSIS OF DIFFERENT DATA COMPRESSION METHODS FOR CURRENT DATA ACQUISITION SYSTEM IN DRIVER ASSISTANCE SYSTEM AND SENSOR VALIDATION
Anton BRUNNER	CONAT20107002	THE CRASH RECORDER
Ștefan TABACU	CONAT20107005	DEVELOPMENT AND VALIDATION OF A FINITE ELEMENTS HUMAN HEAD MODEL FOR IMPACT APPLICATIONS
Sorin ILIE	CONAT20107006	APPLYING THE THEORY OF MULTI-BODY SYSTEMS FOR MODELING THE OCCUPANT KINEMATICS IN AUTOMOBILE'S COCKPIT IN ORDER TO OBTAIN THE HEAD IMPACT VELOCITY WITH THE DASHBOARD
Anton HUDÁK	CONAT20107007	THE ROAD TRANSPORT AND SAFETY

### S7.2 Traffic accident, tests and reconstruction, 28 October, 17:00 - 18:30, Room UI-3, Chairmen: Ștefan TABACU, Ovidiu CAMPIAN

Ștefănița CIUNEL	CONAT20107010	PASSIVE PROTECTION IN TRAFFIC SITUATIONS FOR REDUCING ROAD ACCIDENTS
Ștefănița CIUNEL	CONAT20107011	REPEATABILITY AND REPRODUCTIBILITY OF DUMMY PERFORMANCE
Adrian RUSU	CONAT20107012	THE SATELLITE POSITIONING SYSTEMS ARE IMPROVING THE TECHNIQUES OF OBTAINING DATA FROM SCENES OF ROAD TRAFFIC COLLISIONS
Simona CORPODEAN	CONAT20107013	COMPARATIVE-CRITICAL STUDY OF THE HIGHLIGHTING POSSIBILITIES OF THE TRAFFIC ACCIDENT CAUSES ASSOCIATIVITY TO TECHNICAL CAUSES

### S7.3 Pedestrian and bikers protection, 29 October, 09:00 - 11:00, Room UI-3, Chairmen: Mircea NASTASOIU, Mihaela BARITZ

Bogdan BENEĂ	CONAT20107014	ASPECTS REGARDING THE INJURY SEVERITY IN VEHICLE -PEDESTRIAN COLLISIONS
Dorin DUMITRAȘCU	CONAT20107015	MAIN INJURIES PRODUCT TO PEDESTRIAN BY IMPACT WITH DIFFERENT PARTS OF THE VEHICLE
Adrian ȘOICA	CONAT20107016	MATHEMATICAL MODEL OF HUMAN BODY HEAD AND THORAX INJURY LEVEL SIMULATION FOLLOWING THE MOTOR VEHICLE - PEDESTRIANS COLLISION
Virgil POPA	CONAT20107003	STUDY OF VEHICLE OCCUPANTS INJURY RISK IN SIDE COLLISIONS BASED ON VEHICLE DEFORMATIONS
Nicolae ISPAS	CONAT20107017	PROPOSAL OF NEW VERSATILES DEVICES FOR USES IN TRAFFIC ACCIDENT RECONSTRUCTION



Author	Paper Code	Paper entitled:
<b>Poster Section</b>		
Silviu-Florian SARARU	CONAT20101006	EXPERIMENTAL RESEARCHES REGARDING TESTING LIFETIME AND MONITORING THE BEHAVIOUR OF THE VARIABLE VALVE TIMING SYSTEM ELECTROVALVES ON A TEST BENCH
Cosmin-Constantin BORICEAN	CONAT20101014	ISSUES REGARDING THE USAGE OF HYDRODYNAMIC AND HYBRID BEARINGS IN THE CONSTRUCTION OF TURBOCHARGES
Aron-Adrian PETRIC	CONAT20101019	INTEGRATION OF HYDRAULIC CONVERTER AS VARIABLE FLOW PUMP IN THE HYDRAULIC-HYBRID PROPULSION SYSTEM
Ionut-Tudor SOARE	CONAT20101025	FLUID POWER ENERGY GENERATOR USING FREE PISTON ENGINE
Vlad-Constantin SERBANESCU	CONAT20101044	THE IMPORTANCE OF INTRODUCING THE ONE-WAY VALVES AROUND THE FORKS OF THE HYDRAULIC INSTALLATION OF A HYBRID – HYDRAULIC VEHICLE
Sebastian RADU	CONAT20101051	THE PARALLEL SONIC RESONATOR AS TRANSMISSION OPTIMIZATION SOLUTION FOR SONIC PROPULSION SYSTEMS
Ola KAMIYO	CONAT20101064	A SIMULATION OF THERMAL PERFORMANCE OF PASSENGER SEGMENT OF COMMUTER VEHICLES
Sorin SACAREANU	CONAT20102007	ANALYSIS ON WORLD ENERGY RESERVES AND BIOMASS FUEL SOLUTION
Ruxandra-Cristina (DICA) STANESCU	CONAT20102013	PROCESSES FOR LIQUID BIOFUEL PRODUCTION FROM BIOMASS
Ali OZULUYOL	CONAT20102022	THE INFLUENCE OF OXIDATION ADDITIVES TO THE FUEL PROPERTIES IN COTTONSEED OIL METHYL ESTER
Traian FLOREA	CONAT20102049	SOME RESEARCH REGARDING THE INFLUENCE OF MARINE DIESEL ENGINES PARAMETERS ON NOX EMISSIONS
Traian FLOREA	CONAT20102050	SIMULATION OF A COMBUSTION PROCESS IN A GAS TURBINE COMBUSTOR AND SOME CONSIDERATION REGARDING THE NOX FORMATION
Doru BALDEAN	CONAT20102059	STUDY OF DIESEL FUEL INJECTION SYSTEM USING ADVANCED METHODS
Eliza CHIRCAN	CONAT20102061	A STUDY REGARDING HYBRID ELECTRICAL VEHICLES
Dinu COVACIU	CONAT20104006	DATA ACQUISITION SYSTEM BASED ON GPS TECHNOLOGY, FOR VEHICLE DYNAMICS ANALYSIS
Ionut SERBAN	CONAT20104010	CONSIDERATIONS ABOUT OPTIMIZED CAD DESIGN APPLICATION FOR THE AUTOMOTIVE AND ENGINE'S MECHANICAL STRUCTURES
Ionut SERBAN	CONAT20104011	OPTIMIZATION OF AUTOMOTIVE AND AUTOMOTIVE ENGINE MECHANICAL STRUCTURES OF TODAY
Dan MOLDOVANU	CONAT20104036	STUDIES OF THE INFLUENCE PARAMETERS ON THE PERFORMANCE OF THE ENGINE USING AVL BOOST
Alexandru DRAGALINA	CONAT20104047	SOME ASPECTS REGARDING THE NAVAL DIESEL ENGINES OPERATION
Alexandru DRAGALINA	CONAT20104048	EXPERIMENTAL RESEARCHES REGARDING THE NAVAL DIESEL ENGINES RUNNING
Valeriu ENACHE	CONAT20104057	CORRELATION CAR BODY-ANTENNA, FOR GOOD RECEPTION IN COMMUNICATIONS AND ENTERTAINMENT
Serban RADU	CONAT20106003	DEVELOPMENT OF A TESTING RIG FOR SHAPE-MEMORY-ALLOYS
George TOGĂNEL	CONAT20107018	ASPECTS ON THE VEHICLE TO PEDESTRIAN COLLISION RELATED IMPACTS

# Workshop: Evolution In The Automotive And Transport Engineering

FRIDAY 29 OCTOBER, 11:30 – 13:00, THE CONFERENCE CENTER OF TRANSILVANIA UNIVERSITY - AULA

## Moderators:

Prof. Dr. Eng. Alexandru HERLEA, University of Technology Belfort-Montbéliard,  
Prof. Dr. Eng. Elena HELEREA, Transilvania University

*The invention and innovation processes in automotive and transport engineering, since the origin of this industry, are analyzed using several significant historical aspects presented during the round table.*

## TOPICS:

- *The origin and first developments of the car internal combustion engines:* Prof. Dr. Eng. **Alexandru HERLEA**- University of Technology Belfort-Montbéliard;
- *The evolution of the production system at Peugeot during a century: 1910-2010:* Prof. Dr. **Robert BELOT**, Prof. Dr. **Pierre LAMARD**- University of Technology Belfort- Montbéliard;
  - *Berliet - 80 years of history:* **Monique CHAPELLE**- Vice-President, Berliet Foundation;
- *On the history of Road Vehicle Institute Brasov:* Dr. Eng. **Costel BEJAN**- General Manager, Road Vehicle Institute Brasov;
  - *Stages in development and utilization of differential gear mechanisms for automotive engineering:* Prof. Dr. Eng. **Ionel STARETU**- Transilvania University Brasov;
- *The evolution of electrical car propulsion system and its social and environmental implications: 1880 – 2010:* Prof. Dr. **Liviu SOFONEA**, Prof. Dr. Eng. **Elena HELEREA**- Transilvania University of Brasov, Prof. Dr. **Victoria Cotorobai** - Gheorghe Asachi Technical University Iasi;
  - *The history of compressed natural gas for vehicles in Romania*  
Reader.Dr.Eng. **Dumitru CHISALITA** - President of Society of Natural Gas Engineers, Medias, Romania.

---

# Workshop: Alternative Fuels For Automobiles

THURSDAY 28 OCTOBER, 9:00 – 11:00, THE CONFERENCE CENTER OF TRANSILVANIA UNIVERSITY - AULA

**Moderators:**

**Dr.eng. Peter ZIMA - R&D Enginesystem, Hofer Powertrain, Germany**  
**Assoc.Prof.dr.eng Venetia SANDU - Universitatea "Transilvania", Brasov**

**TOPICS:**

- Consequences of increased consumption (CO2 emissions, global heating, methods for reducing CO2 emissions);
- Worldwide and UE situation of alternative fuels usage. Alternative fuels in Romania - situation and objectives;
  - Obstacles in promotion of alternative fuels (financial, administrative, infrastructure, user reluctance);
  - Compatibility with automotive materials;
- Interests of "Transilvania" University in alternative fuels domain (first generation and second generation biofuels)

---

# Workshop: Computer Based Automotive Engineering

THURSDAY 28 OCTOBER, 14:30 – 16:30, THE CONFERENCE CENTER OF TRANSILVANIA UNIVERSITY - AULA

**Moderators:**

**Prof.h.c. Dr.eng. Willi GRUENDER, Tedata GmbH,**  
**Prof.dr.eng. Ion PREDA, Transilvania University**

**TOPICS:**

*1D-3D Simulation Solutions from LMS*

**Dr.ing. Calin Husar, ing. Daniel Tohoneyanu**  
**LMS International**

*Autodesk Digital Prototyping Solution For Automotive & Transportation*

**Razvan Stancu-Costiurin**  
**Autodesk Application Engineer, MaxCAD S.R.L.**

*A complete solution set: CAD/CAM/CAE/PLM - Software & Engineering Services*

**Ioana Tircomnicu-Unga**  
**Deputy Manager, INAS S.A.**

*Early Verification and Validation with Simulink*

**Gergely SOMLAY**  
**Gamax Ltd., Budapest**

---

# Workshop: Systems for the Management of the Road Safety in Romania;

FRIDAY 29 OCTOBER, 9:00– 11:00, THE CONFERENCE CENTER OF TRANSILVANIA UNIVERSITY - AULA

**Moderators:**

**Eng. Peter M.W. ELSENAAR, GRSP – SENIOR ADVISOR**  
**Dr. Ing. Anton BRUNNER, AXA WINTERTUR**

**TOPICS:**

*Low Speed Rear-impact Collisions and their insurance implications;*

*Accident Reconstruction Solutions*

---



# Student Congress

The CONAT Student Congress, which runs parallel to the main Congress from 27 to 29 October 2010, allows students from all over the world a unique opportunity to participate in an international meeting and present a paper related to automotive transportation and technology.

Students will be free to attend the main congress Plenary Sessions in the morning, and will have their own Technical Sessions in the afternoon. They will also be given the opportunity to discuss and elaborate on a case study of a chosen automotive company in a working-session. The themes for the Student Congress are the same as those for the main congress:

- Innovative Solutions for Automotive Vehicles
- Automotive Vehicles and Environment
- Advanced Transport Systems and Road Traffic
- Heavy and Special Vehicles
- New Materials, Manufacturing Technologies and Logistics
- Accident Research and Analysis
- Student prototype race car design and construction



Speaker	Paper Code	Paper entitled:
Student Section		
<b>Session Stud.1, Room UI-6, 28 October, 11:30 - 13:00, Chairmen: Alexandru BLEMOVICI, Alexandru C-tin V. POPA</b>		
<b>Cristina MANEA</b>	CONAT2010S001	INTERMEDIATE WAREHOUSES LOGISTIC SOLUTION - A CASE STUDY
<b>Rareş-Lucian CHIRIAC</b>	CONAT2010S003	THE SHAFTS ENGINEERING DESIGN WITH MULTIPLE SECTIONS AND AREAS OF STRESS CONCENTRATION FACTOR AND COMPLEX LOADING CALCULATED WITH MDESIGN SOFTWARE
<b>Andrei-Alexandru BOROIU</b>	CONAT2010S004	FOUNDING THE GEOGRAPHICAL CENTER OF ROMANIA: IT IS SITUATED IN THE SOUTH OF THE FĂGĂRAŞ TOWN !
<b>Dan Mihai DOGARIU</b>	CONAT2010S006	CAD MODELING OF AN AUTOMOBILE USING DIFFERENT SOFTWARE
<b>Vlad TOTU</b>	CONAT2010S022	DESIGN OF THE CHASSIS AND BODYWORK FOR THE FORMULA STUDENT CAR 2010 OF THE TRANSILVANIA UNIVERSITY OF BRASOV
<b>Ciprian PALTINISANU</b>	CONAT2010S023	DESIGN OF THE FRONT/REAR SUSPENSION, STEERING SYSTEM AND TRANSMISSION FOR THE FORMULA STUDENT CAR 2010 OF THE TRANSILVANIA UNIVERSITY OF BRASOV
<b>Session Stud.2, Room UI-6, 28 October, 14:30 - 16:30, Chairmen: Alexandru C-tin V. POPA, Nicolae BOICEA</b>		
<b>Radu ALEXANDRU</b>	CONAT2010S008	SOME ASPECTS OF THE BIOETHANOL USE AT A SI ENGINE
<b>Eugen-Ioan RUSU</b>	CONAT2010S009	RESEARCH REGARDING THE LPG USE AT DIESEL ENGINE
<b>Alexandru CHERASCU</b>	CONAT2010S010	DESIGN AND VIRTUAL TESTING OF THE IMPACT ATTENUATOR OF A FORMULA STUDENT CAR
<b>Andrei-Mircea TAMBA</b>	CONAT2010S011	MODELLING AND SIMULATION OF DUAL CLUTCH TRANSMISSIONS FOR DYNAMIC PERFORMANCE
<b>Catalin-Antonio TOMA</b>	CONAT2010S012	STUDYING DYNAMIC AND ECONOMIC PERFORMANCES OF AN ELECTRIC POWERTRAIN
<b>Victor PANTILE</b>	CONAT2010S007	REGARDING TO THE USE OF HYDROGEN IN SI ENGINE
<b>Session Stud.3, Room UI-6, 28 October, 17:00 - 18:30, Chairmen: Ovidiu-Vasile CAMPAN, Razvan ANCA</b>		
<b>Csaba MOLNAR</b>	CONAT2010S014	CONTACT PATCH BETWEEN THE VEHICLE'S TYRE AND GROUND
<b>Imre TAMÁS</b>	CONAT2010S015	FUNCTIONAL DESIGN AND SIMULATION OF A BUGGY SUSPENSION AND STEERING, USING LMS VIRTUAL.LAB SOFTWARE
<b>Andrei Gheorghe APOSTOL</b>	CONAT2010S016	FORCED INDUCTION SYSTEM USING ELECTRICAL ACTUATED SUPERCHARGER
<b>Cosmin VALEANU</b>	CONAT2010S017	ACTUATION SYSTEM OF THE FREE PISTON ENGINE FOR HYDRAULIC PROPULSION
<b>Daniel HORECICA-CSIKI</b>	CONAT2010S018	HYDRAULIC-SONIC CONVERTER FOR AUTOMOTIVE APPLICATION
<b>Ovidiu MOLDOVAN</b>	CONAT2010S019	VEHICLE PROPULSION SYSTEM BASED ON HYDRAULIC –SONIC CONVERTER PRINCIPLE
<b>Session Stud.4, Room UI-6, 29 October, 14:30 - 16:30, Chairmen: Nicolae BOICEA, Razvan ANCA</b>		
<b>Vlad MAGHIAR</b>	CONAT2010S002	THE DESIGN AND THE BUILDING OF A VEHICLE WITH PNEUMATICAL ENGINE
<b>Monica GAGEA</b>	CONAT2010S005	MOBILE OPTOMETRIC SCREENING LABORATORY VEHICLE
<b>Tiberiu BOTEZ</b>	CONAT2010S013	CONSTANTA "OVIDIUS" UNIVERSITY STUDENT'S NEW PROTOTYPES OF ECOLOGICAL CITY AUTOMOTIVE VEHICLES
<b>György GONDA</b>	CONAT2010S020	ELECTROMOBILE RACING CAR FOR STUDENT COMPETITION
<b>Dorin PASTIU</b>	CONAT2010S021	OPTICAL DEVICE FOR REALISTIC VISUALISATION OF THE CAR SCALE MODEL

# Technical visit: Schaeffler Romania



The Schaeffler Group is a renowned supplier to the automotive industry and one of the world's leading manufacturers of rolling bearings and linear products. **INA** products have been known for creative application solutions as well as a high level of engineering and manufacturing expertise for many decades. The traditional **FAG** brand that is over 100 years old has been part of the Schaeffler Group since 2001. For more than 40 years, **LuK** has been synonymous with strength of innovation, customer focus and quality for numerous products in the automotive drivetrain. Founded in 2002, **Schaeffler Romania** is one of the top three production units of the Schaeffler Group. The company manufactures parts for the automotive industry and for the heavy industry. The initial project for the plant consisted in three production halls and a developed area of 55,000 sqm. Those expectations were exceeded by far and the plant occupies today a built area of cca. 100,000 square meters and operates production in six halls. Products manufactured in the company **Schaeffler Romania** are: linear guides, forks, brass cages, tripod rollers, RSTO tappets, slewing rings, spherical roller bearings, cylindrical roller bearings, large size bearings, tapered roller bearings, wind roller bearings.

**Technical visits** of the Schaeffler Romania plant will be organised on the 28th and 29th October. Registrations can be submitted at the Schaeffler exhibition space.

# Exhibition

**Official Opening:** Wednesday 27 October 09:00 AM

The CONAT 2010 Exhibition is a global showcase for companies offering solutions in every area of automotive research, design, development and production. Attendees can visit the exhibition throughout the congress to gain hands-on experience of the latest technologies, products and services on display from leading automotive companies from all over the world.

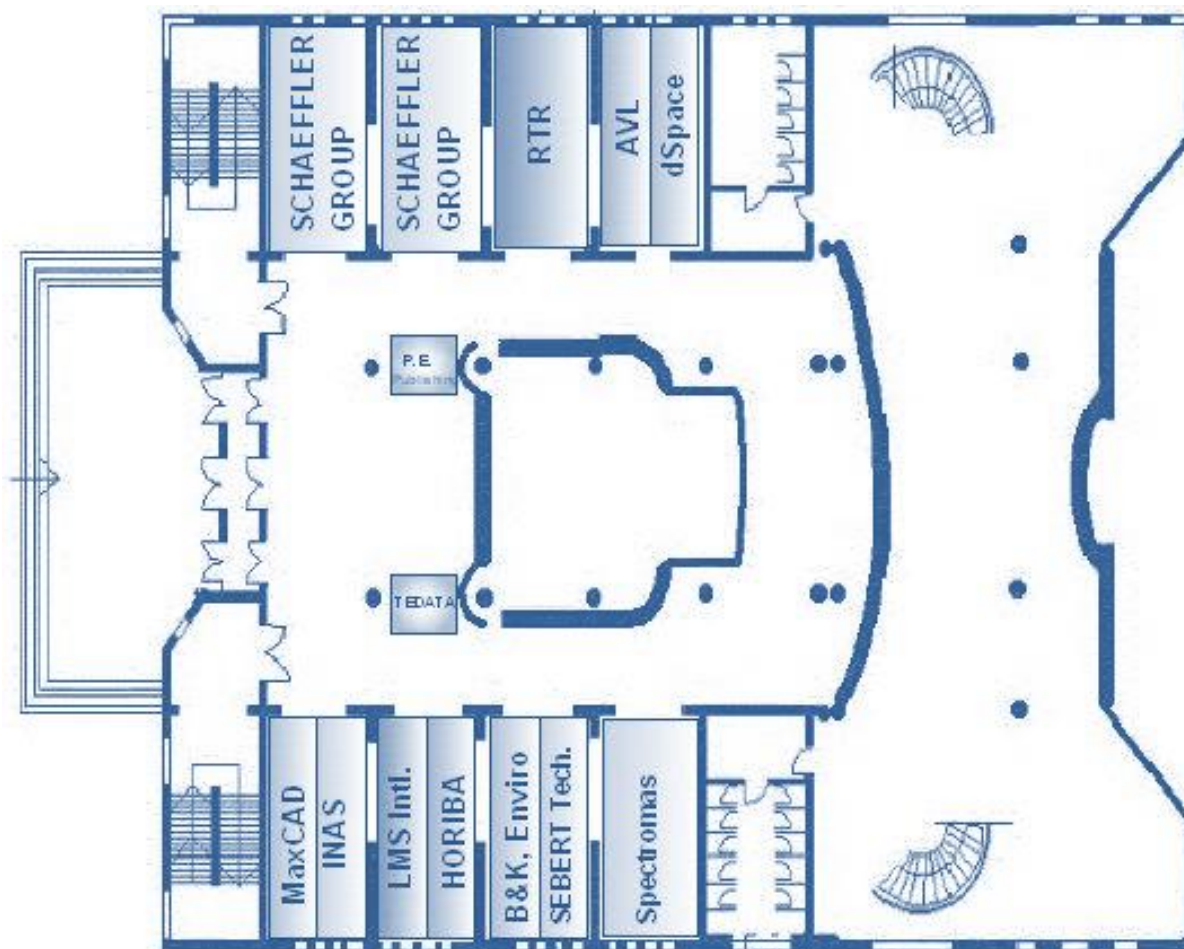
The exhibition is a great opportunity to network with potential customers, suppliers and fellow engineers, and to gain advantages in the fast-growing Romanian automotive markets. Admission to the exhibition area is available free of charge to automotive professionals, in addition to delegates attending the congress.

Exhibition stands will be located in the specially constructed exhibition area at the ground floor of the University's International Conference Centre.

The available spaces for exhibitors, inside, are shown in the picture below. There are 8 open cells, 40 sq.meters each.

Outside, in front of the main entrance of the Conference Center, there are about 1000 square meters available for exhibitors.

Contact us at [conat2010@unitbv.ro](mailto:conat2010@unitbv.ro).



Floor plan: Ground Floor

# The City,

The Brasov city, capital of region Brasov, with a population of little less than 300 000 inhabitant's, first mentioned in documents back in 1235, as a medieval fortress, build over a former Neolithic settlement, is situated in central region of Romania, at the base of Mount Tampa and surrounded by the Carpathians. During it's history, the city was also known as Brasco, Brasso, Stephanopolis, Kronstadt and **Brasov**.

The old fortifications and the remnants of the famous fortress-city lure tourists from everywhere: The Weaver's Bastion, as the oldest bastion in the country, The Black and White Towers, The Catherine's Gate, The Black Church as the most important Gothic monument in Eastern Europe with an astonishing 4000 pipe organ and many more. The city bears the marks of being the Romanian centre of culture and civilization for hundreds of years: The First Romanian School, the first written document in Romanian housed by the Weaver Bastion, the oldest building in town: The Church of St. Batholomeu, founded in 1241, the oldest of the medieval authorities, The Old City Hall (see picture below) and so on.

Situated at the crossroad between Transylvania and Wallachia, Brasov offers its resort centre, Poiana Brasov, for businessmen and tourists equally.



# The University

## Transilvania University of Brasov Automotive and Engines Department

The beginning and development of higher education in the Brasov city origin from the old cultural traditions and intense cultural climate.

The following are several turn points in the University's history:

- 1940 – Academical education has been founded in Brasov, as part of Commercial and Industrial Study Academy;
- 1949 - Mechanical Institute has been founded, by the initiative of the Romanian Engineer Association;
- 1965 – The first Didactic staff Scientific CONAT Session has been attained;
- 1971 –University of Brasov was formed by the union of Polytechnic and Pedagogic Institutes from Brasov;
- 1974 – Participation of the first Didactic staff of the Vehicles and Tractors Department at the FISITA International Congress (ed.XV - May '74, Paris);
- 1974-1977 -The Staff of Vehicles and Tractors Department designed and developed the first small litre vehicle prototype;
- 1979-1981 - The Staff of Vehicles and Tractors Department designed and homologated the first Diesel engines for ROMAN, TRACTORUL and MASTER;
- 1990 - University of Brasov renamed to Transilvania University of Brasov;
- 1990 - Foundation of SIAR Society and its affiliation to FISITA;
- 1990 – Apparition of RIA Automotive Magazine;
- 1992–2010 - Participation to FISITA and EAEC International Congresses located in London, Prague, Paris, Seoul, Beijing, Barcelona, Cernobio, Yokohama, Bratislava, Budapest and München;
- 1994 – Designing, developing and homologating a Street sweeper in cooperation with Fachhochschule Konstanz;
- 1995–2010 - Scientific Research Programs in collaboration with Technical Universities of Konstanz, Aachen, Zwickau and Karlsruhe;
- 1996 – SIAR – SAE Partnership established;
- 1997 and 2004 - Brasov FISITA Board reunion;
- 1997–2001 - SAE Diplomas in recognition of professional activity;
- 1997–2009 - Participation to Detroit SAE Congresses;
- 2000 - The first International SAE-SIAR Symposium accomplished in cooperation with SAE International in Upside Moeciu;
- 2006 – Partnership with Wayne State University, Detroit;
- 2006-2008 - Development of Research Platform Advanced Systems for Autovehicles and Transport – SAVAT;
- 2005-2007 – Participation to Mini Baja Student Competition;
- 2007 – Continuous scientific activity on accident reconstruction, run by the members of Automotive and Engines Department, resulted in the first crash experiments at Transilvania University, Mechanical Engineering Faculty.
- 2009, 2010 – Participation at Silverstone and Catalonia to the Formula SAE Competition for students;
- 2010 – Inauguration of the modern Engines Research Centre;

In present Transilvania University maintains partnership with more than 160 educational centers and universities from E.U., U.S. and Asia such as: Fachhochschule Konstanz, RWTH – Aachen, Karlsruhe University - Germany, Compiegne, Belfort-Montbeliard - France, Gent - Belgium, Wayne State University - U.S.

# Map Guide



## CONAT Interest Points

- 1) Brasov Station
- 2) International Congress Center
- 3) Mechanical Engineering Faculty
- 4) University's "Colina" Complex

## Accommodation

The following hotels were enlisted in the registration form we provided you with.

- 6) Aro Palace \*\*\*\*
- 8) Capitol \*\*\*
- 9) Coroana\*\*
- 10) Postavarul\*\*

## Social Interest Points

- 11) Poiana Brasov Resort
- 12) Black Church
- 13) "Sfatului" Square
- 14) Catherine's Gate
- 15) Weavers' Bastion
- 16) First Romanian School
- 17) The White & Black Towers
- 18) Solomon's Rocks
- 19) St.Bartholomeu Church
- 20) Mount Tampa
- 21) Belvedere

# Information

## Entry into Romania

A valid passport is required for entry into Romania. UE citizens do not require visas.

## Transport from the Airport

### By car:

You can reach Brasov on Bucuresti (Otopeni Airport)-166 Km: Bucharest - Brasov E 60

### By train:

Tickets can be bought one hour before departure at the station or in advance at the downtown CFR booking office (CFR Agency) but not for departure on the same day.

Supplements are payable on rapid and express trains for which seats must be reserved in advance.

### By bus:

To travel by bus contact a travel agency.

## Transport in Brasov

City transportation is being provided by the following transportation methods:

- RATBv bus / trolley bus / tram, with a ticket of 1.5 Lei / travel (aprox 33 EuroCents / travel) or
- by private taxi companies which offer service for about 1.5 Lei/km (aprox. 33 EuroCents/ km).

For RATBv transportation service a daily ticket can be acquired for about 5 lei (aprox. 1.2 Euro).

**Note:** RATBv travel itineraries linking the City with Poiana Brasov or suburban regions have other costs / ticket.

## Congress Language

The official language of the CONAT Congress is English.

## Climate

Brasov has a temperate-continental climate with cold and relatively wet weather in the mountains. The summer nights in Brasov could be a little chilly.

The average temperature is 7.6 degrees C and the annual average humidity in the air is 75%. The highest temperature in summer is 35.0 degrees C and the lowest in winter is -25 degree C.

## Currency

The currency in Brasov is **Lei**. Money can easily be exchanged at banks as well as at the exchange booths located in the city centre and at tourist sites.

## Time Zone

Brasov is on Eastern European Time (GMT + 2h).

## Wellcome Reception and Registration Desk

<b>26 oct.</b>	17:00-19:00	Transilvania University, Conference Center (Registration)
	19:00-22:00	Aro-Palace Hotel (Welcome Reception)
<b>27 oct.</b>	8:00-17:00	Transilvania University, Conference Center (Registration)
<b>28 oct.</b>	9:00-18:30	
<b>29 oct.</b>	9:00-13:00	

## Coffee Breaks

Will be available at 10:30 (or 11:00), 16:30 for half hour each.

## Programme Changes

The organizers are not liable for any changes made to the programme. Please visit the web site regularly for updates.

## Insurance & Liability

Registered participants agree that neither Transilvania University nor other organizer part take any responsibility for any damages or loses, including medical expenses, suffered or incurred whilst attending the Congress. Delegates are strongly advised to make their own arrangements in terms of medical, travel and personal insurance.

# Social programme

- Schaeffler Evening - the Congress Center of Transilvania University

Wednesday, 27 October, 19:00 – 22:00

- Organ Concert, at Black Church

Thursday, 28 October, 18:00 – 18:40

**The price is not included in the conference registration fee!**

- Gala Dinner - Restaurant "Cerbul Carpatin" – Piata Sfatului

Thursday, 28 October, 19:30 – 23:00

**The price is not included in the conference registration fee!**



Besides the activities already mentioned in the programme above, some touristic tours will be organised:

**The price of the tours are not included in the conference registration fee!**

- Brasov Panoramic Tour (with Bus)



- Fortified churches tour

- visit the fortified churches in Harman and Prejmer



- Brasov - Rasnov - Bran - Sinaia

- visit the citadel of Rasnov, the medieval castle in Bran and the Peles Castle in Sinaia



- Off-Road Tour

- an exciting trip out of the paved roads, with 4x4 cars...



**Registrations for the above touristic tours can be submitted at the Congress Registration Desk.**

