



**INTERNATIONAL SYMPOSIUM  
“INTERDISCIPLINARY REGIONAL RESEARCH”  
– ISIRR 2009 –  
HUNEDOARA, ROMANIA,  
23 - 24 APRIL, 2009**

■ **FINAL CALL ANNOUNCEMENT & REGISTRATION OF THE PARTICIPANTS**

It is our great privilege and pleasure to extend a cordial and sincerely invitation to you and your colleagues to attend the 10<sup>th</sup> **INTERNATIONAL SYMPOSIUM “INTERDISCIPLINARY REGIONAL RESEARCH” – ISIRR 2009 – ANNIVERSARY EDITION**, which will be held in **Hunedoara – Romania**, in April, 23<sup>rd</sup> – 24<sup>th</sup>, 2009.

The 10<sup>th</sup> **INTERNATIONAL SYMPOSIUM “INTERDISCIPLINARY REGIONAL RESEARCH” – ISIRR 2009 – ANNIVERSARY EDITION**, will ensure an exchange of scientific information and didactical opinions in fields with an impressive dynamic considering the research and the technological progress.

The **SYMPOSIUM** will also provide the opportunity for exchanging ideas and experience with our colleagues coming from **HUNGARY, SERBIA** and **ROMANIA** and for developing new scientific collaboration.

■ **KEYWORDS:**

Scientific events, Multidisciplinarity, Symposium, Scientific collaborations

■ **GENERAL INFORMATIONS**

✚ Data: **THURSDAY, 23<sup>rd</sup> – FRIDAY, 24<sup>th</sup> of APRIL, 2009.**

✚ The official language at the **SYMPOSIUM** is **ENGLISH**, and the papers are accepted only in **ENGLISH**.

✚ The **SYMPOSIUM** includes **PLENARY SESSIONS, WORK-SHOPS, POSTER PRESENTATIONS, INFORMATIVE** and **AGREEMENT ACTIONS.**

✚ The papers of a high scientific level will be presented during the **SYMPOSIUM**, while the

rest of the papers will have a poster-form presentation.

✚ The papers, classified according to the topics and presented in the **SYMPOSIUM** sections, are collected in the **CD VOLUME PROCEEDINGS.**

✚ Also, the selected conference papers will be appear in a special number of the multidisciplinary engineering journal **ANNALS OF FACULTY OF ENGINEERING HUNEDOARA – JOURNAL OF ENGINEERING (FASCICULE 4/2009, PRINT VERSION, ISSN 1584-2665).**

✚ A selected lot of papers from the **SYMPOSIUM** sections will be collected in the **ONLINE**

SUPPLEMENT of ANNALS OF FACULTY OF ENGINEERING HUNEDOARA – JOURNAL OF ENGINEERING, in the ACTA TECHNICA CORVINIENSIS – BULLETIN OF ENGINEERING.

- ✚ The papers have to frame into topics, to have an interdisciplinary character, and to be at the level of an international symposium.
- ✚ The selected papers will have to be presented in the SYMPOSIUM sections therefore the presence of one of the authors is required.
- ✚ The papers must have an interdisciplinary characteristic and to treat themes of mutual interest for our geographical area: eastern HUNGARY, northern SERBIA and western ROMANIA.
- ✚ Priority is given to papers produced by a mixed team of researchers from the three countries.
- ✚ Researchers from other countries may participate as well, on the condition of applicability for their results on the above mentioned geographical areas.

#### ORGANIZERS

The 10<sup>th</sup> INTERNATIONAL SYMPOSIUM "INTERDISCIPLINARY REGIONAL RESEARCH" – ISIRR 2009 organizers are:

- FACULTY OF ENGINEERING HUNEDOARA,
  - UNIVERSITY POLITEHNICA TIMISOARA
  - ASSOCIATION FOR MULTIDISCIPLINARY RESEARCH OF THE WEST ZONE OF ROMANIA (ACM-V) – TIMISOARA
  - GENERAL ASSOCIATION OF ROMANIAN ENGINEERS (AGIR) – branch of HUNEDOARA
  - ROMANIAN NATIONAL PARK "RETEZAT"
- with kindly support of our partners:
- HUNGARIAN ACADEMY OF SCIENCE – branch of SZEGED, HUNGARY, and
  - UNIVERSITY OF NOVI SAD, NOVI SAD, SERBIA

#### INTERNATIONAL SCIENTIFIC COMMITTEE

- Prof. dr. NICOLAE FARBAȘ – head of ASSOCIATION FOR MULTIDISCIPLINARY RESEARCH OF THE WEST ZONE OF ROMANIA (ACM-V) – TIMIȘOARA, ROMANIA
- Prof. h.c. dr. eng. GALLIA BUTNARU – „BANAT” UNIVERSITY OF AGRICULTURAL SCIENCES AND VETERINARY MEDICINE TIMISOARA, ROMANIA

- Prof. dr. eng. TEODOR HEPUT – dean of the FACULTY OF ENGINEERING – HUNEDOARA, ROMANIA
- Prof. dr. IMRE DEKANY – president of HUNGARIAN REGIONAL ACADEMY OF SCIENCES, SZEGED, HUNGARY
- Prof. dr. MARIA HOMOKI-NAGY – scientific secretary of HUNGARIAN REGIONAL ACADEMY OF SCIENCES, SZEGED, HUNGARY
- Prof. dr. CECILIA HODUR – member of HUNGARIAN REGIONAL ACADEMY OF SCIENCES, SZEGED, HUNGARY
- Prof. dr. Radmila MARINKOVIC-NEDUCIN – rector of the UNIVERSITY OF NOVI SAD, NOVI SAD, SERBIA
- Prof. dr. Mirjana VOJINOVIC-MILORADOV – UNIVERSITY OF NOVI SAD, INSTITUTE OF CHEMISTRY, NOVI SAD, SERBIA
- Prof. dr. VLADIMIR KATIC – UNIVERSITY OF NOVI SAD, FACULTY OF ENGINEERING, NOVI SAD, SERBIA
- Prof. dr. eng. FRANCISC WEBER – head of the GENERAL ASSOCIATION OF THE ROMANIAN ENGINEERS (AGIR) – branch of HUNEDOARA, ROMANIA
- Prof. dr. JECU AVRAM – UNIVERSITY OF MEDICINE AND FARMACY „VICTOR BABEȘ”, TIMIȘOARA, ROMANIA
- Assoc. Prof. dr. eng. NICOLAE RUSU – vice-dean of FACULTY OF ENGINEERING – HUNEDOARA, ROMANIA
- Assoc. Prof. dr. eng. CAIUS PĂNOIU – vice-dean of FACULTY OF ENGINEERING – HUNEDOARA, ROMANIA
- Prof. dr. STEFAN MAKSAÏ – FACULTY OF ENGINEERING – HUNEDOARA, ROMANIA
- Prof. dr. ing. ȘTEFAN BARTZER – University Politehnica Timișoara, ROMANIA
- Prof. dr. DORIN BRATU – „VICTOR BABEȘ” UNIVERSITY OF MEDICINE AND FARMACY, TIMIȘOARA, ROMANIA
- Prof. dr. ing. MARIAN BURĂ – „BANAT” UNIVERSITY OF AGRICULTURAL SCIENCES AND VETERINARY MEDICINE TIMISOARA, ROMANIA

#### REGIONAL ORGANIZING COMMITTEE

- Assoc. Prof. dr. eng. IMRE KISS – scientific secretary of the SYMPOSIUM
- Assoc. Prof. dr. eng. ANA VIRGINIA SOCALICI – scientific secretary of the FACULTY OF ENGINEERING – HUNEDOARA

Assist. Prof. ec. dr. eng. VASILE ALEXA  
 – co-coordinator of organizing activities  
 Assist. Prof. dr. eng. SORIN RATIU  
 – co-coordinator of organizing activities  
 Assist. Prof. dr. eng. VASILE GEORGE CIOATĂ  
 – co-coordinator of organizing activities

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■ **SYMPOSIUM TOPICS**

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■ **SECTION 1.**

**ECONOMICAL DEVELOPMENT AND STRATEGIES IN OUR REGIONS AND ABROAD**, focusing on problems concerning the general field of economics and management, the European Integration of our countries, the differences between the development of the regions from Eastern Europe and the management of diminishing unfavorable differences, including aspects regarding the globalization and economy of small and medium enterprises, human resources, management strategies and organization behavior, provides a leading forum for interaction and research on the competitive strategies of managers and the organizational structure of firms;

■ **SECTION 2.**

**MEDICAL ISSUES, LABOR HEALTH AND VETERINARY MEDICINE**, focusing on novelties in medical studies and veterinary medicine, medical advice, diagnoses and treatment, including new knowledge on pathogens, immunity to pathogenic micro-organisms, epidemiology related to infections, specific aspects of treatment of diseases, pathological and clinical studies (including case reports), diagnosis tests and technical reports, as well as labor related accidents and professional diseases

■ **SECTION 3.**

**APPLIED ECOLOGY AND ENVIRONMENTAL PROTECTION IN THE REGION**, focusing on the management of the city and on industrial waste materials, debating issues concerning the environmental engineering, the environmental impact analysis and assessment, the industrial and urban environmental management, the cleaning process, pollution agents and pollution sources, water – air – soil quality analysis, the re-utilization of industrial wastes and the diminishing of pollution and the environmental planning and environmental protection in the regions of the Eastern Europe area;

■ **SECTION 4.**

**USES OF NATURAL RESOURCES IN REGIONS, MINING, ENERGY CONSERVATION AND PLANNING**, focusing on general fields of industry, mining, agriculture, forestry, botany and horticulture, hydrology, biotechnology, material and energetically resources, including energy conservation and planning and alternate energy development, in multidisciplinary studies;

■ **SECTION 5.**

**APPLIED SCIENCES AND TECHNOLOGIES – MANUFACTURING AND RESEARCH IN ENGINEERING FIELDS**, focusing on engineering science and practice, covering the full spectrum of engineering theory and practice, including studies involving the application of physical and mathematical techniques to fundamental investigations and emerging areas within the engineering fields, incoming with information from a wide variety of applied science specialties in multidisciplinary studies;

■ **SUBSECTION 5.A**

**APPLIED SCIENCES AND TECHNOLOGIES – MANUFACTURING AND RESEARCH IN MECHANICAL ENGINEERING**, focusing on mechanical engineering science and practice, covering the full spectrum of mechanical field.

■ **SUBSECTION 5.A**

**APPLIED SCIENCES AND TECHNOLOGIES – MANUFACTURING AND RESEARCH IN INFORMATICS & ELECTRICAL ENGINEERING**, focusing on electrical engineering and informatics, covering the full spectrum of electrical field.

■ **SUBSECTION 5.A**

**APPLIED SCIENCES AND TECHNOLOGIES – MANUFACTURING AND RESEARCH IN MATERIAL SCIENCE ENGINEERING**, focusing on material science and engineering, theory and practice, covering the full spectrum of metallurgy fields, including raw materials and waste management in this industry.

■ **SECTION 6.**

**METHODS AND TECHNIQUES, INSTRUMENTS AND SUPPLIES IN THE NATURAL SCIENCE FIELDS**, focusing on the theory and practice of chemistry and physics, covering the full spectrum of natural sciences in multidisciplinary studies;

▪ **SUBSECTION 6.A**

**METHODS AND TECHNIQUES, INSTRUMENTS AND SUPPLIES IN THE FIELDS OF CHEMISTRY AND PHYSICS**, focusing on the general chemistry and physics, including the multidisciplinary in these areas.

▪ **SUBSECTION 6.A**

**METHODS AND TECHNIQUES, INSTRUMENTS AND SUPPLIES IN THE FIELD OF MATHEMATICS**, focusing on the mathematic fields and the application of mathematics in the engineering.

▪ **INFORMATIVE MEETING.**

discussing the topic: **REGIONAL INTEGRATION**, concerning the expanding of the application area for the transferable credit system between the specialized faculties and universities from HUNGARY, SERBIA and ROMANIA, educational and pedagogical issues common for this countries, as well as problems regarding the extending of connections between the institutions on educational matters, teaching and specializing processes and co-operation between professors and students.

■ **INVITATION**

The SYMPOSIUM is an open invitation for all specialists, professors, researchers and experts in all scientific fields, who can produce a free presentation of the results in their activities. It is preferable for the papers to have an interdisciplinary characteristic and to treat themes of mutual interest for our geographical area: eastern HUNGARY, northern SERBIA and western ROMANIA.

Priority is given to papers produced by a mixed team of researchers from the three countries. Researchers from other countries may participate as well, on the condition of applicability for their results on the above mentioned geographical areas.

For more information please contact the FACULTY OF ENGINEERING – HUNEDOARA, SECRETARY OFFICE OF THE ORGANIZING COMMITTEE.

An e-mail address was be opened to receive your correspondence: [redactie@fih.upt.ro](mailto:redactie@fih.upt.ro)

All information on the conference will also be available on the web at <http://annals.fih.upt.ro/sustained-events>.

■ **SCHEDULE OF EVENTS**

**1<sup>ST</sup> DAY, THURSDAY, 23<sup>RD</sup> APRIL, 2009**

08.00 – Welcoming of guests and registration of participants – in the HALL of FACULTY OF ENGINEERING – HUNEDOARA  
10.00

10.00 – Opening Ceremony – in the AMPHITHEATRE of FACULTY OF ENGINEERING – HUNEDOARA  
11.30

**Plenary Lecture # 1**

FROM THE RETEZAT NATIONAL PARK TO EUROPE'S "YELLOWSTONE" - SEEDS FOR THOUGHTS FOR THE ESTABLISHMENT AND EFFICIENT MANAGEMENT OF EUROPE'S LARGEST PROTECTED AREA COVERING THE SOUTHERN AND WESTERN CARPATHIANS IN ROMANIA AND SERBIA

Dr. ERIKA STANCIU – WWF DANUBE CARPATHIAN PROGRAMME, CARPATHIAN, FORESTS AND PROTECTED AREA LEADER, RETEZAT NATIONAL PARK PRESIDENT

**Plenary Lecture # 2**

SUSTAINABLE DEVELOPMENT AND THE ECONOMIC CRISIS

Dr. CARMEN HĂRĂU – UNIVERSITY POLITEHNICA TIMIȘOARA, FACULTY OF ENGINEERING – HUNEDOARA

**Plenary Lecture # 3**

SLAG – UTILIZATION IN ROAD CONSTRUCTION – EXPERIENCE AND SOLUTIONS

Eng. RODICA ISTRATE – BUSINESS SERVICES PREST SRL HUNEDOARA

**Plenary Lecture # 4**

ADVANCED TECHNIQUES IN ELECTRON SPECTROSCOPY FOR SURFACE AND INTERFACE STUDIES,

Prof. Dr. BERNARD GRUZZA – POLYTECH'CLERMONT-FERRAND UFR SCIENCES, UNIVERSITÉ BLAISE PASCAL – CLERMONT II CLERMONT-FERRAND, HEAD OF THE RESEARCH GROUP "SURFACES AND INTERFACES", LABORATOIRE DES SCIENCES DES MATÉRIAUX POUR L'ELECTRONIQUE ET D'AUTOMATIQUE, LASMEA, FRANCE

11.30 – Coffee break – in the HALLS of FACULTY OF ENGINEERING – HUNEDOARA  
12.00

12.00 – Setting of posters by sections – in the HALLS of the FACULTY OF ENGINEERING  
12.30

12.30 – Presentations and debates by sections – in the AMPHITHEATRES of the FACULTY OF ENGINEERING  
14.00



- 14.00 – *Break for lunch – in the STUDENT RESTAURANT of the Faculty of Engineering – Hunedoara*
- 16.00 – *Debates by sections – in the Amphitheatres of FACULTY OF ENGINEERING*
- 19.00 *Festive dinner – in the HOTEL MAIER – HUNEDOARA \*\*\**

**2<sup>ND</sup> DAY, FRIDAY, 24<sup>TH</sup> APRIL, 2009**

- 08.00 – *Breakfast – in the HOTEL MAIER – HUNEDOARA \*\*\* and in the STUDENT RESTAURANT of the FACULTY OF ENGINEERING – HUNEDOARA*
- 10.00 – *Presentations and debates by sections and posters – in Halls and in Amphitheatres of the FACULTY*
- 11.30 – *Informative Meeting – in the COUNCIL CHAMBER of the FACULTY OF ENGINEERING*
- 12.30 – *Final debates and CLOSING CEREMONY – in the Amphitheatre of FACULTY OF ENGINEERING*
- 13.30 – *Break for lunch – in the STUDENT RESTAURANT of the FACULTY OF ENGINEERING – HUNEDOARA*
- 14.00 *Visit to tourist sights (CORVIN CASTLE and surroundings)*

**PROGRAM SCHEDULE**

*Faculty of Engineering – Hunedoara  
Amphitheatre # 1 – # 6  
Group C, Floor 1  
Group B, Floor 2  
Group F, Floor 1  
Presentations and debates by sections*

**1<sup>ST</sup> DAY, THURSDAY, 23<sup>RD</sup> APRIL, 2009**

*12.30 – 14.00 and 16.00 – 19.00  
Faculty of Engineering – Hunedoara  
Central Hall # 1 – Group C, Floor 1  
Presentations and debates by posters*

**1<sup>ST</sup> DAY, THURSDAY, 23<sup>RD</sup> APRIL, 2009**





*16.00 – 19.00*

**2<sup>ND</sup> DAY, FRIDAY, 24<sup>TH</sup> APRIL, 2009**

*10.00 – 12.00*

**THE INFORMATIVE MEETING**

- *discussing the topics:*

-  *REGIONAL INTEGRATION, concerning the expanding of the application area for the transferable credit system between the specialized faculties and universities from HUNGARY, SERBIA and ROMANIA, educational and pedagogical issues common for this countries, as well as problems regarding the extending of connections between the institutions on educational matters, teaching and specializing processes and co-operation between professors and students.*
-  *EXTEND AREA OF ISIRR, discussing about the expanding possibilities of the ISIRR in BULGARIA and SLOVAKIA.*
-  *ISIRR for ISI PROCEEDINGS APPLICATION, discussing about the possibilities to accede into international databases for recognize the ISIRR as important Symposium in this area.*
-  *THE 11<sup>th</sup> ISIRR, organized in SZEGED, HUNGARY, in preliminary discussions*



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**ROMANIA**

<http://acta.fih.upt.ro>

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■ **SECRETARY OFFICE  
OF THE ORGANIZING COMMITTEE**

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