



*“Gheorghe Asachi” Technical University of Iasi, Romania*



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## *EDITORIAL*

### **A SPECIAL ISSUE DEDICATED TO**

### **THE 6<sup>th</sup> INTERNATIONAL CONFERENCE ON**

### ***ENVIRONMENTAL ENGINEERING AND MANAGEMENT***

### ***ICEEM06, 2011***

*01- 04 September 2011, Balatonalmádi, Hungary*

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The **International Conference on Environmental Engineering and Management, ICEEM 2011**, at its 6<sup>th</sup> Edition, represents a scientific event that is dedicated to the promotion and dissemination of the scientific results obtained at national and international level in the fields of environmental engineering, environmental management and sustainability. The event was initiated and organized every 2 years, since 2002, by the **Department of Environmental Engineering and Management**, Faculty of Chemical Engineering and Environmental Protection from the “*Gheorghe Asachi*” Technical University of Iasi, aiming from the very beginning to bring together international researchers, academics, professionals and students, activating in the fields of environmental engineering and management and to support knowledge exchange and dissemination of specific research and educational programs. The conference language was exclusively English for all the ICEEM editions.

Since 2002, the ICEEM conferences continue to cover aspects of sustainable development that can be achieved by taking into consideration the ideas of multidisciplinary research, international cooperation and effective communication of the scientific, technological, educational and managerial achievements in the environmental field. The 6th edition of ICEEM (<http://www.iceem06.iceem.eu/index.html>) adds a new dimension to its international character, for the first time being organized outside the borders of its home country, in Balatonalmádi, Hungary.

This was possible thanks to the ever strengthening bilateral relations of its organizing institutions: the *University of Pannonia Veszprém*, Hungary and the “*Gheorghe Asachi*” Technical University of Iasi, Romania.

So far, ICEEM tradition was to gather scientists from various countries every two years, the ICEEM conferences being held in Iasi, Romania in: **2002 (ICEEM 01)**, **2004 (ICEEM 02)**, **2006 (ICEEM 03)**, **2007 (ICEEM 04)**. In **2009, ICEEM 05** was organized jointly in Tulcea and Danube Delta, Romania by the Department of Environmental Engineering and Management from the “*Gheorghe Asachi*” Technical University of Iasi, and the *University of Pannonia Veszprém*, Hungary. This co-operation in the organization of the ICEEM international conference was continued in **2011**, when **ICEEM 06** was organized at on the beautiful shores of the Balaton Lake, Hungary, by the same co-operating institutions. The natural environments and the excellent organization represented an additional reason for participation, contributing to a very pleasant and warm atmosphere during the ICEEM06 sessions.

Supplementary, the 6<sup>th</sup> edition of ICEEM 2011 represented a frame for preparing further international events, as it gathers the researchers and professionals in the field of sustainable development and environmental protection, known for their involvement in the development of novel concepts and environmental applications.

The 6<sup>th</sup> **International Conference on Environmental Engineering and Management** (ICEEM 06\_2011) had as major headline: **GREEN FUTURE**, as recognition of the fact that a sustainable future cannot be conceived without the involvement of the environmental specialists. ICEEM06 was organized with the support of: *TÁMOP-4.1.1.A-10/1/KONV-2010-0006* Project, “*Complex Development of Student, Institutional and Labour Market Services at the University of Pannonia*”, of the *InterMediu* Department, at the “*Gheorghe Asachi*” Technical University of Iasi, and of the *OAIMDD*, Academic Organization for Environmental Engineering and Sustainable Development, Iasi, Romania.

As we look back in the organization of ICEEM conferences, the statistics is encouraging, since these events evolved as visibility and recognition. Thus, **45** participants (6 foreign) were registered for *ICEEM 01* in 2002, **91** participants (27 foreign) for *ICEEM 02* in 2004, **106** participants (52 foreign) for *ICEEM 03* in 2006, **64** participants (10 foreign) for *ICEEM 04* in 2007 and **129** participants (27 foreign) for *ICEEM 05* in 2009. Some of the foreign and Romanian colleagues have already registered four or five participations at the ICEEM events, a fact that is always encouraging for the organizers.

**ICEEM06** (2011) brought at the Ramada Hotel in Balatonalmádi, Hungary 100 representatives from universities, research institutes, policy makers, governmental and non-governmental organizations from **10 countries** (Romania, Hungary, Italy, Estonia, Austria, Czech Republic, Spain, Iran, Malaysia and Republic of Moldova).

With the experience and reputation gained in previous editions, ICEEM 06 conference aimed at a qualitative increase due to the key note lectures, presentations and published papers, after peer review. Thus, at the 6<sup>th</sup> ICEEM edition, the organizers received 220 papers, and after an international peer-review process, 116 extended abstracts were accepted for presentation at the conference as key note lectures, oral presentations and posters. The **ICEEM06 Book of Abstracts** was published by the ECOZONE Publishing House in 2011 and contained the extended abstracts of the accepted papers. The publication of the ICEEM contributions is performed, after a peer review process, in the **Environmental Engineering and Management Journal, EEMJ** (<http://omicron.ch.tuiasi.ro/EEMJ/>), an international ISI *Web of Science* ranked journal with an impact factor IF of 1.435.

ICEEM 06, **GREEN FUTURE**, focused into the future of environmental engineering technologies, environmental management practices and instruments and it especially was open to contributions from young and senior researchers that approach environmental problems in a multidisciplinary manner.

The interest in developing clean technologies for environmental protection is increasing as well, and is materialized through dedicated events organized by academic and research structures. Moreover, ICEEM06 proposed a wide range of scientific and social events during which participants had the chance to develop and

strengthen their research interests, as well as to establish and enhance multidisciplinary and international cooperation.

At the same time, this event encouraged practitioners and specialists in various environmental fields to add a more practical-oriented approach to the conference sessions.

According to this strategy, the research projects, the interdisciplinary doctoral programs, the post-doctoral programs, etc. are formulated to address core and fundamental-applied issues for the development of new materials and processes that ensure materials, water and energy efficiency, while reducing pollution and developing remediation processes with improved performances and low cost.

The ICEEM 06 conference major sessions (<http://www.iceem06.iceem.eu/themes.html>) fit in the national and international research priorities and correspond to the organizing institutions strategic agenda. Thus, topics as “*Pollution and Monitoring*”, “*Air Pollution*”, “*Water Supply and Wastewater Treatment*”, “*Impact, Risk and Life Cycle Assessment*”, “*Green Chemistry and Catalysis*”, “*Environmental Integrated Management and Policy Making*”, “*Solid Waste Management*”, “*Environmentally Friendly Materials*” and “*Modelling, Simulation and Optimization*” were enlisted as major sessions of ICEEM06 as fields of major interest for advanced research.

Keeping track with the scientific developments, the **ICEEM topics** enlarged during time by including novel trends and research directions; therefore, the areas addressed now are including green chemistry and catalysis and environmental friendly materials. Thus, the current edition has addressed mainly a new trend on promoting new solutions for integrating technologies and materials for developing sustainable communities. This approach requires interdisciplinary national/international partnerships, whose training/ extension is supported by the current edition of ICEEM. Considering also the needs for a knowledge-based society, a special attention is given to the high level applications of the concepts, models and to the contribution in sustainable development solutions.

The **ICEEM06** international event had as conference Chair persons: Prof.dr. eng., dr.h.c., Carmen Teodosiu (Romania), Prof.dr. eng., dr.h.c., Ákos Rédey (Hungary), Prof.dr. eng. Matei Macoveanu (Romania). The event included different activities, as follows:

**ICEEM06 Plenary lectures**, delivered by recognized personalities, who presented substantial synthesis of achievements in their research fields and formulated interesting directions of study for the years ahead. Five Plenary speakers brought their contribution to this event: Prof. Dr., dr.h.c. Anton FRIEDL, Vienna University of Technology, Austria, Prof. Dr. eng. Maria GAVRILESCU, “*Gheorghe Asachi*” Technical University of Iasi, Romania, Prof. Dr. eng. Emil DUMITRIU, “*Gheorghe Asachi*” Technical University of Iasi, Romania, Prof. Dr. eng. Carmen TEODOSIU, “*Gheorghe Asachi*” Technical University of Iasi, Romania and Prof. Dr.eng. Ákos RÉDEY, University of

Pannonia, Hungary.

**ICEEM06 Oral presentations and Poster sessions** presented recent research results in the fields of: environmental impact, risk and life-cycle assessment; catalysis; mathematical modelling, simulation and optimization; environmental, integrated management and policy making; soil and water pollution and monitoring; water supply and wastewater treatment: materials and processes; materials science; environment friendly materials; solid waste treatment, air pollution and green chemistry and catalysis. Current research in these areas combines techniques and processes that consider the sustainable development concept, thus enabling the simultaneous evaluation of functionality and sustainability of the systems and their impact on the environment.

Looking back at the previous ICEEM conferences, we hope that these events were not only the

place for disseminating excellent scientific results, but also the starting points for other research co-operation or educational projects, while maintaining an internationally recognized standard for the ICEEM communications and ISI publications.

We hope very much to continue this tradition and we are looking forward to receive new contributions for the 7<sup>th</sup> edition of the **International Conference on Environmental Engineering and Management, ICEEM07** which will be held in 2013 in Vienna, Austria. This event is based on the existent co-operation in education and research between the Department of Process Engineering and Simulation, **Vienna University of Technology, Austria** and the Department of Environmental Engineering and Management, from the **“Gheorghe Asachi” Technical University of Iasi, Romania**.

#### Guest editors:

**Prof.Dr.eng. Carmen Teodosiu, ICEEM06 chair person, “Gheorghe Asachi” Technical University of Iasi, Romania**

**Prof.Dr.eng. Ákos Rédey, ICEEM06 chair person, Pannonia University, Veszprem, Hungary**

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**Carmen Teodosiu** is professor in the Department of Environmental Engineering and Management, Faculty of Chemical Engineering and Environmental Protection of the „Gheorghe Asachi” Technical University of Iasi, Romania (TUIasi). She obtained her chemical engineering degree at TUIasi (1981), post-graduate *Diploma with distinction* (1995) and *Master of Science with distinction* in Environmental Science&Technology (1996), at the International Institute of Hydraulics and Environmental Engineering, *UNESCO-IHE* Delft, The Netherlands, and her PhD in Chemistry at TUIasi (1998). Prof. Teodosiu’s research and teaching experience is in the fields of Water and Wastewater Treatment Processes, Integrated Water Resources Management, Environmental Management/ Sustainable Consumption. Prof. Teodosiu is a PhD supervisor in the fields of Chemical and Environmental Engineering. She has authored more than 210 articles and books, 5 patents, and has been involved as director/researcher in 20 international grants and 32 national grants.



**Ákos Rédey** is professor and head of the Institute of Environmental Engineering, University of Pannonia, Veszprém, Hungary. Prof. Rédey obtained his Chemical engineering degree at Veszprém University (1974), *Master of Science* in Environmental Management at University of Bologna, Italy (1996), Doctorate Degree in Chemical Engineering at Veszprém University (1977), Doctor of Chemical Science Degree (PhD degree, 1995), Habilitation in chemistry (1995) at the Hungarian Academy of Science. His teaching and research area are Environmental Impact Assessment, Auditing; Environmental Management Systems; Catalysis, Applied Catalytic Processes for Environmental Protection. Prof. Rédey received 14 scientific and professional awards; the latest one is *Environmental Award* granted by Hungarian State Secretariat for Environmental Affairs in June 2011, for the activity in the emergency response team involved in the environmental monitoring, impact assessment and devising red mud sludge clean-up technologies for the Red Mud catastrophe of 2011, Ajka, Hungary.



**Maria Gavrilescu** is professor at the Department of Environmental Engineering and Management–Faculty of Chemical Engineering and Environmental Protection of the „Gheorghe Asachi” Technical University of Iasi, Romania, where she teaches courses in Chemical and Biological Process Engineering, Process Synthesis and Analysis, Integrated Pollution Prevention and Control, Sustainable Industrial Production, Environmental Risk Assessment and Management. She supervises doctoral thesis in the fields of Chemical and Environmental Engineering. Prof. Gavrilescu has authored more than 350 books and articles in the fields of chemical and environmental engineering, pharmaceutical and environmental biotechnology, pollution prevention and cleaner production, and risk assessment and management. She has also managed or participated in 18 national and 7 international research projects and 25 research projects with industrial companies. She is the Managing Editor of the *Environmental Engineering and Management Journal*.

