



“Gheorghe Asachi” Technical University of Iasi, Romania



EDITORIAL

A SPECIAL ISSUE DEDICATED TO THE 10th INTERNATIONAL CONFERENCE ON ENVIRONMENTAL ENGINEERING AND MANAGEMENT, *ICEEM10, 2019*

September 18-21, 2019, Iasi, Romania

The *International Conference on Environmental Engineering and Management (ICEEM)* 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 (TUIASI), Romania. The declared objectives of all ICEEM conference editions were 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 programmes.

Department of Environmental Engineering and Management from “Gheorghe Asachi” Technical University of Iasi is leading at national level the *Environmental Engineering* programmes since its foundation in 1990. In 2011, the programmes (BSc, MSc, PhD and post-docs) in this domain were evaluated and ranked on the 1st place in Romania, considering their performances in education, research activities and national/international visibility.

The **ICEEM conferences** have grown in importance, quality and number of participants in time, the first conferences being held in Iasi, Romania in: **2002 (ICEEM01)**, **2004 (ICEEM02)**, **2006 (ICEEM03)**, **2007 (ICEEM04)**, **2015 (ICEEM08)** while in **2009, ICEEM05** was organized in Tulcea and Danube Delta, Romania (www.iceem.ro). From **2011**, these international conferences have been organized **outside Romania** through the direct collaboration of Department of Environmental Engineering and Management from “Gheorghe Asachi” Technical University of Iasi with

three prestigious European universities as follows:

- **ICEEM06** organized in Hungary (Lake Ballaton) together with *University of Pannonia Veszprém*,
- **ICEEM07** organized in Austria (Vienna) together with Vienna University of Technology (*Thermal Process Engineering and Simulation Research Division*),
- **ICEEM09** organized in Italy (Bologna), together with *Alma Mater Studiorum University of Bologna (UNIBO)*, under the aegis of *Romanian Academy*, having as official partners: a) *Environmental Biotechnology Section* of the European Federation of Biotechnology (EFB), b) *Academic Organization for Environmental Engineering and Sustainable Development* (Romania), c) *InterMEDIU Information, Consultancy &ODL Centre* (Romania).

ICEEM10 returned for its anniversary edition in Iasi, where it was organized traditionally by the Department of Environmental Engineering and Management of “Gheorghe Asachi” Technical University of Iasi (TUIASI), Romania. The following official partners supported ICEEM10 organisation: The European Federation of Biotechnology, *Environmental Biotechnology section*; *Romanian Academy*; *Academic Organization for Environmental Engineering and Sustainable Development* (OAIMDD); *InterMEDIU Department*, “Gheorghe Asachi” Technical University of Iasi.

The conference president was **Prof.Dr., dr.h.c. Carmen Teodosiu** (Romania), ICEEM10 being supported by the International Scientific Committee (ISC) whose 47 members came from 18 countries. The ICEEM10 conference format preserved the specificity of previous conferences, such as: invitation of well-known

scientific personalities for the plenary opening or keynote lectures, peer-review process of the extended abstracts by the International Scientific Committee members, selection of the most important contributions for presentation in the conference oral or poster sessions, post-publication of selected/invited full papers after a peer review process organized according to each supporting journal specific requirements.

The conference sessions reflect the international priorities that require focus on research and innovation and interdisciplinary international and national collaboration. Also considering the needs for a knowledge-based society, a special attention was given to the implementation of concepts, models and to the contributions to sustainable development.

This anniversary edition registered 192 participants, for 72 oral communications and 98 posters, grouped in 15 sessions under the 6 major conference topics: *I. Environmental biotechnology, II. Water and wastewater cycles: technologies, recycling and valorisation; III. Sustainable waste management and exploitation for chemicals, materials and energy recovery; IV. Sustainability assessments and eco-innovation; V. Novel materials for environmental and energy applications; VI. Monitoring and modelling of environmental pollution.*

The ICEEM10 participants are well known specialists in environmental protection coming from a network of: 37 Universities (22 Universities from abroad), 13 Research and Development Institutes (4 from abroad) and 4 industrial partners. Participants from 6 continents, provided a global character to this edition, and 18 countries were represented as follows: Algeria, Australia, Austria, Brazil, Czech Republic, France, Germany, Greece, Hungary, Italy, Malaysia, Mexico, The Netherlands, Poland, The Republic of Moldova, Romania, Spain and Switzerland. This large number of participants was similar to that of the previous ICEEM conference (ICEEM09).

The extended abstracts were published in the ICEEM10 Conference Abstracts Book, published at the ECOZONE Publishing House of the Academic Organization for Environmental Engineering and Sustainable Development (OAIMDD).

The ICEEM10 opening ceremony was held on September 18, 2019 in the beautiful and historic Aula of the “*Gheorghe Asachi*” Technical University of Iasi and was chaired by: **Prof.dr. Dan Cascaval, Rector of TUIASI, Prof. dr. Carmen Teodosiu** (ICEEM10 conference chairperson), TUIASI, **Prof. dr. Anton Friedl** (former ICEEM07 conference chairperson), Vienna University of Technology. Prof.dr. Carmen Teodosiu initiated the opening session with a presentation of the ICEEM conference “history”, its challenges, collaborations and development network, as well as the support for conference organisation and publication in ISI ranked journals.

The plenary and keynote conference lectures, were held by renowned scientific personalities, covering cutting-edge topics in environmental sciences and

engineering: **Prof.Dr. Cecilia Maria Villas Boas de Almeida** (Paulista University, Brazil), **Prof.Dr., Dr.h.c. Wilhelm Schabel** (Karlsruhe Institute of Technology, Germany), **Prof.Dr., Dr.h.c. Fabio Fava** (*Alma Mater University* of Bologna, Italy), **Prof.Dr. Antonio Marzochella** (University of Naples Federico II, Italy), **Prof.Dr. Francesco Fatone** (Marche Polytechnic University, Italy), **Prof.Dr. Silvia Fiore** (Polytechnic University of Turin, Italy), **Prof.Dr., Dr.h.c. Anton Friedl** (Vienna University of Technology, Austria), **Dr. Lluís Corominas** (ICRA Catalan Institute for Water Research, Spain), **Acad. Prof.dr., Dr.h.c. Gheorghe Duca** (Moldavian Academy of Science, The Republic of Moldova).

The participants’ presentations within the sections of the ICEEM10 major themes consider research at laboratory, pilot and full scale, novel materials and processes applied for various environmental compartments, as well as sustainability instruments applied for production and consumption systems so as to decrease their impacts on the environment. This international event focused on the future of environmental engineering technologies and management practices and it was open to contributions from researchers that approach environmental problems in a multidisciplinary manner. The parallel oral and poster sessions were chaired by the members of the International Scientific Committee, as well as by other recognized professionals.

The authors presenting their work within ICEEM10 sessions were invited (after the conference) to submit full papers for publication, based on the recommendations of the conference organizers and International Scientific Committee. The following international journals supported the ICEEM10 selected papers publication after specific peer-review processes: *Process Safety and Environmental Protection* (Elsevier, ISI ranked), *Environmental Engineering and Management Journal* (ISI ranked), *Sustainable Production and Consumption* (Elsevier).

The ICEEM10 event facilitated the interactions of researchers and professionals from different countries, with different backgrounds, experiences and research directions with environmental background, demonstrating thus an interest for **present** and **future** in the perspective of sustainability dimensions.

The ICEEM conferences represent an important platform to disseminate excellent scientific results, but also the starting point for other research co-operation or educational projects, while maintaining the internationally recognized standards for ICEEM communications and international peer-reviewed publications. Considering this frame, ICEEM10 represented a stage for preparing further international events and projects, as it gathered researchers in the fields of sustainable development, circular economy and environmental protection, known for their involvement in the development of novel concepts and environmental applications. The overall organization of such an international conference is a major challenge and the

support of the scientific and organizing committees is highly acknowledged.

We hope to continue this tradition and we are looking forward to the organization of the **11th International Conference on Environmental Engineering and Management, ICEEM11**, which will take place between **08-10 September 2021, in Muttetz, Switzerland**. This event will be organized by the Department of Environmental Engineering and Management of “Gheorghe Asachi” Technical University of Iasi, together with University of Applied Sciences and Arts Northwestern, Switzerland and *Alma Mater Studiorum Universita di Bologna, Italy*, having as supporting partners: European Federation of Biotechnology, *Environmental Biotechnology Section* and *Academic Organization for Environmental Engineering and Sustainable Development (OAIMDD)*, *InterMEDIU Department*, TUIASI. This event, having the headline *Environmental Engineering for a Clean and*

Healthy Planet, will be organized in a dual format, direct and on-line due to the current sanitary situation.

More information about the 10th International Conference on Environmental Engineering and Management– ICEEM10, as well as about its previous and next editions, may be found on the official conference website: www.iceem.ro

References

*** ICEEM official website: www.iceem.ro

Guest Editors:

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Carmen Teodosiu is Full Professor and Director of Department of Environmental Engineering and Management, *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, in 1998. Prof. Teodosiu was Vice-Rector for Research (2008-2016) and Director of the Doctoral Schools at TUIASI (2008-2012). Prof. Teodosiu's research and teaching experience is in the fields of water and wastewater treatment processes, environmental integrated management and sustainability assessments.

Prof. Teodosiu published more than 182 scientific papers in international ISI and peer-reviewed journals, conference proceedings, 25 books, 7 patents, 145 key note lectures in international/ national conferences. She has been involved as director/ PI in 31 international grants&strategic projects, 143 national research grants and contracts with industry. Prof. Carmen Teodosiu is PhD supervisor in the domains of *Chemical Engineering* (since 2005) and *Environmental Engineering* (since 2009). She is a member of the Editorial Boards of 9 international peer-reviewed journals. In 2011 she received the *Doctor honoris causa* award from the Pannonia University, Hungary. Prof. Teodosiu is the initiator and president of the *International Conference on Environmental Engineering and Management (ICEEM)* with 9 editions organized so far.



Maria Gavrilescu is Full Professor at the Department of Environmental Engineering and Management, and Director of the Doctoral School of the *Gheorghe Asachi* Technical University of Iasi, Romania. Her research and teaching interests include: chemical and biological process engineering, biotechnology-environmental biotechnology, environmental risk assessment and management, sustainable industrial production/cleaner production, circular economy. Professor Gavrilescu is PhD Supervisor in *Chemical Engineering* (since 2002) and *Environmental Engineering* (since 2009). She is author/co-author of more than 750 titles, including over 50 books/chapters, over 200 papers published in ISI ranked journals and ISI Proceedings, over 250 papers in peer-reviewed journals and conference proceedings, 12 patents, keynotes, oral presentations, posters etc.

Prof. Gavrilescu coordinated over 60 national and international research projects. Also, she is member of Editorial Advisory Board of over 15 international journals; member of *Romanian Society of Chemistry*; *European Federation of Biotechnology* (member of Experts Board of *Environmental Biotechnology* Section), independent expert of European Commission for FP6, FP7, Horizon 2020, Horizon Europe etc. The scientific visibility is illustrated by over 4500 citations (H-index 33 in WOS, 34 in Scopus, 44 in Google Scholar). Prof. Gavrilescu is Editor-in-chief of *Environmental Engineering and Management Journal* (ISI ranked), *Procedia Environmental Science, Engineering and Management* (Scopus), Co-editor of *Annals of Academy of Romanian Scientists*, and Academic Editor of other five journals included in Web of Science.