

Plenary Speakers



Professor DAN CASCAVAL

"Gheorghe Asachi" Technical University of Iasi, Romania

Plenary Lecture: *Pertraction - Unconventional Alternative for Separating Biosynthesis Products*

Dan Cașcaval is Full Professor at the Department of Chemical and Biochemical Engineering, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection of the "Gheorghe Asachi" Technical University of Iasi, Romania. He currently is the Rector of the University since 2016, while previously was the Dean of the Faculty, chancellor, director of the department. The main research area addresses Biochemical Engineering and Biotechnology with main focus on: fermentative and enzymatic processes; bioreactors; bioseparations. Prof. Cașcaval has published over 25 books, manuals, chapters in volumes; over 350 papers in journals with impact factor (147) or included in international databases; holds over 15 patents. He was awarded with more than 75 awards and distinctions, among which the Romanian Academy Award (2015), Chemical Sciences category "Nicolae Teclu", for works in the field "Obtaining and separating biosynthesis products by unconventional processes", Excellence Award of the "Gheorghe Asachi" Technical University of Iași (2015) as coordinator of the research team that has attracted the most funds in the last 3 years. Prof. Cașcaval has been involved in the implementation of 36 national grants (18 project director), 4 international grants (2 project manager) and 13 contracts with industry companies (director). He is a PhD Supervisor in the field of Chemical Engineering (since 2003), with more than 10 completed and confirmed theses. He is also the promoter of numerous collaborations with Romanian universities, universities abroad, research institutes and companies in the country and abroad, as Visiting Professor, member of university committees and councils, member of scientific and professional societies. Prof. Cascaval is a member of the editorial board as well as peer-reviewer for many prestigious scientific journals.



Professor DAN ELIEZER

Ben-Gurion University of the Negev, Beer Sheva, Israel

Plenary Lecture: *Materials Performance in Hydrogen Environments*

Professor Dan Eliezer received his PhD in Materials Science and Engineering from the Technion Institute of Technology in Israel in 1975. Some of his more prominent positions include Research

Associate at the University of Illinois at Urbana-Champaign; National Research Council Senior Associate at the Air Force Base in Dayton, Ohio; Senior Associate at NASA-AMES Research Center; Eric Samson Chair of the Department of Materials Engineering at Ben Gurion University in Beersheva, Israel; Senior Visiting Scientist at the Federal Institute for Materials Research & Testing in Germany; Professor of the National University of Seoul; and Fellow at Swedish Institute for Metals Research. He is the recipient of several awards, including the ASM Fellowship, the American Academy of Science Fellowship, Wilhelm-Ostwald-Fellowship; DFG Mercator Professorship; and Outstanding Contribution in the field of Hydrogen Energy at Kyushu University, Japan. He has received honorary titles from numerous universities throughout the world, including Doctor Honoris Causa at the "Gheorghe Asachi" Technical University of Iasi and University Politehnica of Bucharest. Professor Eliezer is especially known for his research in the field of hydrogen embrittlement in materials and energy. He has also devoted a considerable amount of time in physical metallurgy and environmental behavior of light metals. Professor Eliezer published over 500 papers, has written numerous collective volumes, presented in hundreds of international conferences, and edited 9 scientific books. He is an active member in a variety of academic, research and institutional committees.



Professor NICOLAS KALOGERAKIS

School of Environmental Engineering, Technical University of Crete, Greece

Plenary Lecture: *Challenges in Recycling of Plastics and Microplastics - Bio-Based Solutions*

Nicolas Kalogerakis is collaborating faculty at the Institute of Petroleum Research at FORTH and Professor of Biochemical Engineering at the Technical University of Crete (Greece) where he has served as Vice-President of the University Council and as Department Head (twice). Prior to that he was a Professor at SUNY-Buffalo (USA) and at the University of Calgary (Canada). He holds a Diploma in Chemical Engineering from NTUA (Athens), an MEng from McGill University and a PhD from the Univ. of Toronto. His area of expertise includes environmental biotechnology focusing on bioremediation and phytoremediation technologies for the restoration of contaminated sites; protection and restoration of the marine environment from oil spills or plastics and microplastics; novel oxygenation systems and wastewater treatment. Currently his group is participating in 3 EU-funded research projects (H2020) and he is the coordinator of an ERA-MIN2 project (nanoBT). He was the coordinator of the large FP7-project KILL*SPILL. Prof. Kalogerakis' publication record includes six patents, one book, 216 articles in referred journals and more than 180 presentations at international conferences. He has been an invited speaker in several conferences and academic institutions worldwide. He has >14200 citations & H-index of 65 (Google Scholar). He has served as a member of the European Commission Environment Committee (2007-2011) and as Sherpa at the European Commission High Level Group on Key Enabling Technologies (2013-2015). He is member of the Advisory Board of several Research Institutes and in 2017, he was the recipient of the TU-Crete Research Excellence award.



Professor HORIA IOVU
University Politehnica Bucharest, Romania

Plenary Lecture: *Polymer-based Nanocomposites. New Methods and Concepts*

Horia Iovu is professor of polymer science and technology, chemist engineer, specialization in Composite Materials (Manchester Metropolitan University, U.K., 1994-1995), PhD in Chemistry and Technology of Polymers (1995); full professor since 1999 (University Politehnica of Bucharest - Department of Bioresources and Polymer Science); Member of the National Council for Research in Higher Education (CNCSIS) (2005-2011); President of the National Council for awarding the university titles in Romania, the field of Chemical Engineering (since 2006); Vice-Rector / Director of Council for Doctoral Studies (since 2012); Full member of the Romanian Academy of Scientists; Fellow of the Royal Society of Chemistry (FRSC), Fellow of the Romanian Chemical Society. **Professional experience:** elastomers synthesis by polymerization of dienes with lanthanide-based catalysts, composite materials-synthesis and design, nanocomposite materials based on polymer matrices reinforced with silicates, nanocomposite materials based on polymer matrices reinforced with carbon nanotubes / graphene, carbon nanotubes - modification and compatibilization, biomaterials for scaffolds, collagen-HAP-synthetic polymers composites, polymer-based drug delivery systems. **Scientific activity:** Group leader for the research group **The Advanced Polymer Materials Group** (since 2005) devoted to synthesis and characterization of new nanocomposites based on various polymers and reinforcing agents (www.apmg.pub.ro) for various applications including bioengineering, author / coauthor of more than 210 papers published in WoS - rated journals, 6 books published at national level and 5 book chapters at international level, Editor-in-chief "Materiale Plastice" journal and member of the editorial board of Polymers and Molecules journals.



Professor SOHEL MURSHED
Instituto Superior Técnico, University of Lisbon, Portugal

Plenary Lecture: *Research on an Emerging Area in STEM-Challenges, Progress and Prospects*

Sohel Murshed is currently a professor of Thermofluids and Energy Conversion Technologies at Department of Mechanical Engineering of the Instituto Superior Técnico (IST), University of Lisbon, Portugal. After obtaining PhD degree in Mechanical and Aerospace Engineering from Nanyang Technological University (NTU) of Singapore in 2007 he worked as postdoctoral fellow at NTU, Singapore and University of Central Florida, USA. Then he moved to Portugal and worked at the Faculty of Sciences of the same university for several years before joining IST. Prof.

Murshed is named in the rankings of World's Top 2% Scientists (both career and year 2019 impacts lists) that was published by Stanford University in late 2020. He has so far authored/coauthored 8 books, 27 book chapters, and more than 150 papers in leading international journals and conferences. He has current Google Scholar Citations of 6590 with h-index of 30. Several of his papers have been classified as highly cited papers by the Web of Science.

Prof. Murshed was a Portugal national delegate to the management committee of a European Commissions COST action (NanoUptake: 2016-2020) and also served as a group leader of the Action. He is currently a core member of on-going CIG project- NanoConVEX. Prof. Murshed is an Editor of "Journal of Nanofluids" since 2012 and an Associate Editor of "Journal of Thermal Analysis and Calorimetry". He also guest-edited special issues of journals- Nanomaterials, Biosensors besides being editorial board member of several other international journals. Prof. Murshed holds memberships of several organizations like of the American Society of Mechanical Engineers, American Society of Thermal and Fluids Engineers, and European Thermoelectric Society. He has served as a reviewer for research proposals for different organizations like EC and for many countries, dozen of PhD theses, and about 40 international journals including numbers of top level ones like "Nature". Prof. Murshed's main research interests include nanofluids, ionanofluids, micro- and nanoscale heat transfer, nanomaterials-fluids systems, heat exchangers, renewable energy, waste heat recovery, microfluidics, advanced energy and cooling technologies.



Professor DOINA PISLA
Technical University of Cluj-Napoca, Romania

Plenary Lecture: *New Trends in Medical Robotics*

Professor **Doina PISLA** is currently the Director of Council for University Doctoral Studies within the University of Cluj-Napoca, Romania and the Director of the Research Center for Robots Simulation and Testing - CESTER within the same university. Professor Doina PISLA obtained her PhD within the Technical University of Cluj-Napoca in 1997. Following an academic carrier she became full professor at the Department of Mechanical Systems Engineering in 2005, teaching lectures in Modelling and Simulation of Robots and Medical Robotics.

Prof. PISLA's research activity is focused mainly on the field of Robotics and Mechatronics, with emphasis on the kinematics and dynamics of parallel robots, development of innovative medical robots, reconfigurable structures. As a result of her scientific activity, Prof. PISLA published over 180 peer-reviewed full papers in scientific journals and conferences, co-authored over 10 patents. She has been director or key member of more than 50 international and national projects.

In the meanwhile she served in boards and program committees of various international conferences and congresses, being currently member of the Technical Committee for Computational Kinematics and for Biomechanical Engineering of International Federation for the Promotion of Mechanism and Machine Science (IFTOMM).