

[Registration](#)

Countdown

0 days[Template for Manuscripts](#)**Conference >>**[Home](#)[What's New](#)[Call for Papers](#)[Important Dates](#)**Organization >>**[Organizing Committee](#)[Conference Speakers](#)[Conference Program](#)[Sponsors](#)**For Participants >>**[Venue](#)[Registration Fee](#)[Conferences History](#)[FAQ](#)

Biography



Prof. Ille C. Gebeshuber

Vienna University of Technology, Austria

Title:**Sustainable Biomimetic Nanotechnology: Inspiration from Nature for Disruptive Micro- and Nanosystems****Abstract:**

Microsystems and nanotechnologies are booming technological fields with important implications on human life and the biosphere, on all scales. The micro- and nanoscale is an important realm for the language of life. Living nature excels in sustainable ways to accumulate materials, manufacture functional structures via ambient processes and use and dispose of their products in ways that make them available as resources such as scaffolds, food or fertilizer for further organisms. The presentation will address Nature's nanotechnology, including mining with plants, nanoparticle production in organisms, biomineralization of microstructures comprising more than 70 different minerals, all produced at ambient conditions, and counterintuitive ways of plants resulting in functions that are of high importance in technical devices. Based on selected examples of already successfully transferred interdisciplinary knowledge from our greatest teacher to engineering the talk will reveal the underlying principles and provide food for thought for the development of a comprehensive nanotechnology for the well-being of all.

Biography:

Prof. Ille C. Gebeshuber is a University Professor of Physics from Austria, Europe. She is expert in Nanotechnology, Biomimetics and Tribology. Unlike most other physicists and engineers her approach to science is wide and holistic, and inherently trans- and interdisciplinary, bridging over to biology, the arts and the social sciences. Since 2009 she has been living and working in Malaysia. Prof. Ille is associate editor of the IMechE Journal of Mechanical Engineering Science (SAGE Publishing, London, UK), editorial board member of various scientific journals, author of two books on biomimetics and nanotechnology and editor of a book on biomimetics by Springer Scientific Publishing. Since 2011 she has been scientific advisory board member regarding nanotechnology for the Lifeboat Foundation, a US American think tank safeguarding humanity. Her research interests comprise the use of nanotechnology and biomimetics to address global challenges for humankind. Prof. Ille C. Gebeshuber serves on various international strategy boards. She has been acting as reviewer and advisor for agencies, universities, research institutions and public bodies. Prof. Ille is doing extensive public science outreach work and her professional activities are widely covered in the media. On rainforest expeditions with her students, who come from different cultures and different fields (Europe & Asia, physics, engineering, biology, veterinary medicine, applied arts, fine arts), they get inspiration for their work on interdisciplinarity, human vs. technical evolution and limits of morality and humanism in a computerised world. Her research interests are located at the interface of biology, engineering and the arts, systems thinking and nanotechnology. She is advisor in various expert panels, including the Science Advisory Board (Arlington, USA), the Strategy Board of the Austrian Center of Competence for Tribology (Wiener Neustadt, Austria), QS and THES University Rankings and the ISESCO Expert Panel on Nanotechnology.