Research Report ষ্ল

HONORARY PROFESSOR Professor Daniela RUS, MIT - Massachusetts Institute of Technology, SUA

- Professor Daniela Rus was born in 1963 in Cluj-Napoca She emigrated in the United States in the '80s, but she still holds a double citizenship Romanian and American.
- In 1993, Daniela Rus received her Ph.D. at Cornell University under the supervision of Professor John Hopcroft.
- Since 2003, prof. Daniela Rus is the "Andrew and Erna Viterbi" Professor of Electrical Engineering and Computer Science at Massachusetts Institute of Technology, Cambridge, Massachusetts, and director of the Computer Science and Artificial Intelligence Laboratory (CSAIL) since 2012. Daniela Rus is also the Deputy Dean of Research for the Schwarzman College of Computing at MIT since 2019.
- Prof. Rus is a member of the National Academy of Engineering and of the American Academy of Arts and Sciences and fellow of the Association for the Advancement of Artificial Intelligence (AAAI), fellow of the the Institute of Electrical and Electronics Engineer (IEEE), and fellow of the Association for Computing Machinery (ACM). She is also a recipient of a MacArthur Fellowship, a National Science Foundation Career award, and an Alfred P. Sloan Foundation fellowship. She is a recipient of the 2017 Engelberger

Robotics Award for Education from the Robotics Industries Association.

- Her statement on the future world is described as: "I imagine a future where robots are so integrated in the fabric of human life that they become as common as smart phones are today. The field of robotics has the potential to greatly improve the quality of our lives at work, at home and at play."
- Rus' research interests include robotics, mobile computing and programmable matter. She is known for her work on self-reconfiguring robots, shape-shifting machines that have the ability to adapt to different environments by altering their internal geometric structure. They do this on their own, without remote control, for locomotion, manipulation, or sensing purposes. She has shown that these self-reconfigurable machines could be used in many situations where the possible obstacles and constraints on movement could not ever be fully anticipated in preprogrammed control software (e.g., deep sea or planetary exploration).
- Professor Daniela Rus joined UPT as a keynote speaker at conference dedicated to digital education and artificial intelligence "Human and Artificial Intelligence for the Society of the Future".



Research Report Segment



HONORARY PROFESSOR Professor Ladislau MATEKOVITS, Politecnico di Torino University, Italy

- Ladislau MATEKOVITS was born in1967, he graduated in1992 the Bucharest Polytechnic Institute, Faculty of Electronics and Telecommunications, and the second degree of the same profile was obtained in 2002 from the Politecnico di Torino University.
- Since 1996 he has been employed at Politecnico di Torino in various positions (collaborator, technician, etc.), and since 2002 he has been permanently employed as a teacher.
- During his teaching career, Professor Ladislau Matekovits has demonstrated remarkable action in all modern educational cycles: bachelor's, master's, and PhD's degree. Among the subjects taught we can remember: Electromagnetic Fields, Complements of Electromagnetic Field, Antennas (bachelor), Electromagnetic Compatibility, Radio Planning (master), Metamaterials, Metasurfaces, Numerical Optimization (PhD).
- Professor MATEKOVITS' long-term collaboration with UPT/Faculty of Electronics, Telecommunications and Information Technologies has manifested itself on various levels: didactic, scientific, through joint programs and by supporting the organization of international scientific events.
- On the teaching level, Mr. Matekovits published two books

in Romanian, at the Politechnic Publishing House, one of Microwaves and Electromagnetic Compatibility and a collection of Microwave problems. The professor also supported the doctoral school through direct guidance and publication of scientific papers in common with the participation of PHD students from UPT. The Professor supported the conduct of the international traditional symposiums of Electronics and Telecommunications organized by UPT (ISETc) through direct participation with works in collaboration with professors and PhD students, through reviews of the proposed countries, and through presentation and/ or organizing lectures in the plenary of the events at the latest editions.

- The programs carried out jointly were of the Socrates type and then Erasmus, since 2004 until now.
- Another type of collaboration was provided by the MCD type mobility programs granted by UEFISCDI to finance the movement of Romanian researchers from the diaspora to research institutions in Romania to support scientific research in the country. UPT, through the MEO department of the ETcTI faculty, has so far carried out three such programs with Mr. Matekovits as a guest.

