



Prof. Radu Rugescu

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Dr. Radu D. Rugescu, university professor, married (daughter and son), is born in Bucharest, Romania, E. U. He is affiliated since 1969 with University "Politehnica" of Bucharest (UPB), Dept. of Aerospace Sciences "Elie Carafoli", successively as assistant professor, lecturer, associate and full professor. With expertise in Astronautics, with emphasize on Propulsion, Thermochemistry, Astrodynamics, Optimization, Statistics, Programming, Robotics and Manufacturing Technology, he teaches courses in Romanian, English and German languages on "Numerical methods", "Processes in Rocket Engines", "Technology of aerospace systems", "Astrodynamics", "Turbomaschinen", "Orbital Launchers", "Ecological

combustion", "Optics and Acoustics", a. s. o. He has received the Doctor in Science degree from UPB in Aerodynamics and Fluid Mechanics and performed several specializations in Germany and U. S. A. His research firsts include, some of them as patent applications, a Genuine Solid Rocket Propellant in 1959, The first Romanian liquid propellant rocket engine in 1969, the first Capture of freezing temperature of water-gas reaction in 1982, the first Romanian air-breathing rocket engine in 1987, a New variational method for discontinuous integrands in 1997, a new technology for Air captured imaging and TV live transmission from high altitude airplanes of solar eclipse in 1999, Non-Keplerian gravity coupling of very large space structures in 2004, Solar gravity-assisted Accelerator in 2006, The unit histogram for scarce statistical information in 2008, the Combined Rocket Engine in 2010, Solenoid microthruster for spacecraft orientation in 2012 and others. Project Director of NERVA grant (UEFISCDI) for the first Romanian orbital launcher, dr. Rugescu has authored 7 pending patents, many of them with students and young researchers. He directs energy and space research projects, including initiatives with Stanford University in the Thermochemistry of Combustion, several 5-year collaborative exchanges with Texas A&M University, USA, as Fulbright alumnus and three ERASMUS contracts with INT-TELECOM & Management SudParis, Dépt. Réseaux et Services des Télécommunications, Istanbul Technical University, Faculty of Aerospace Engineering, Turkey and Institute Polytechnique des Sciences Avancee, Ivry-Paris. He is known for 251 public works, including 18 books. His works benefit of 150 quotations and citations, 137 of which are international, with 18 from ISI-Thomson. 54 papers are published with young specialists as co-authors. He was honored with 30 biographic awards, including Who's Who in America 2007-2011, Honor Diploma of St Sava Romanian College 2011, Turkish NIST-2011 diploma and Medal and others. He is member of the Astronautics Commission of the Romanian Academy since 1975, member of the International Institute for Acoustics and Vibrations since 2002, of the American Chemical Society since 2010 and in other societies. He was nominated in 2011 by the Romanian government as board member of the National Commission for Academic Titles CNATDCU in Aerospace and Transportation.