Homage to Henri Coanda

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Academician, Dr. -Eng. Henri Coanda, great scientist and prodigious inventor, was born in Bucharest, Romania, in June 1886, as son of the Romanian captain Constantin Coanda, professor at Military High School and at the High School of Bridges and Roads, in Bucharest and of his French wife Hayda Danet. He studied at the college Saint Sava in Bucharest and at the Military College in Iasi. He obtained the titles of Diplom Engineer and of Doctor Engineer at the Technical University Charlottenburg in Berlin. Beside his study he played violoncello, realised his first sculptures and was fascinated by the first motor flight of brothers Orville and Wilbur Wright in 1903, launched with a catapult…

His interest and passion for the aviation were born. He was going to Paris to study at the new created "École Supérieure d'Aéronautique et des Constructions Mécaniques" and obtained the title of "Ingénieur-Aéronautique" in the first promotion of this University. During his sojourn in Paris another inventor from Lugoj, Romania, passioned for aviation, Train Vuia, was flying in March 1908, with his airplane, which took off in 1908 at Montesson near Paris, by using the first landing gear with rails invented by him, without needing the catapult. In order to be able to realise his invention, the airplane with jet engine, without propellers, Henri Coanda studied also at the "Institut Supérieur d'Électricité" in Liège and "Istituto Superior del Electricita" in Montefiori. Beside his jet engine, he is the author of more than 1500 inventions like the flying saucers and the pneumatic com-puter, which use his Coanda Effect. More details about his life, inventions and scientifical activities can be found in the very interesting book of V. Firoiu titled "Din nou acasă" (Editura Tineretului, 1966).

He exhibited his jet engine airplane at the International Aeronautical Fair in October 1910 and realized the first worldwide jet flight on 16th December, 1910. The centenary of his first flight with jet engine is celebrated this year by: INCAS, COMOTI, Military Central Museum and by the Romanian Academy, in Bucharest.

I have had the honour to meet many times this excellent scientist and inventor, after his return in Romania, during his visit to IMA (Institute of Applied Mechanics), of Romanian Academy, in which I have worked 14 years as scientist in the research group of High Speed Aerodynamics and during the 20th Jubilar Conference of IMA, organised in 1966 by Acad. Prof. Elie Carafoli, the director of IMA. Henri Coanda participated at the sessions of this conference and, after its end, he offered two nominalized research grants, one for Dr. Eng. Stefan Savulescu and the other, in France, for me!

My grant, sponsored by the CNRS (Centre National de la Recherche Scientifique), has opened a new scientific horizon for me. It gave me the possibility to work as scientist by ONERA (Office National d'Études et Recherche Aérospatiales), to prepare a second doctor thesis in Applied Mathematics at the "Université Paris VI, Pierre et Marie Curie, en Sorbonne" and to present my scientific results on Aerodynamic Optimization of Wing's Shape at the Universities: of Karlsruhe and Aachen (Germany), of Lille and Marseille

(France), of Torino (Italy) and at von Karman Institute of Fluid Mechanics, at Rhode Saint Genèse, near Brussels (Belgium). Henri Coanda, Hermann Oberth and Traian Vuia are the Romanian great scientists and inventors, who are shared with France and Germany and who have given great contributions to the worldwide development of aeronautics and astronautics.

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