

Francesco Braghin graduated in Mechanical Engineering in 1997 at Politecnico di Milano, has obtained the PhD in Applied Mechanics in 2001 and has become Full Professor in Applied Mechanics at the Department of Mechanical Engineering of Politecnico di Milano in 2015. Since the Academic Year 2002-2003 he has been teaching 34 courses among which *Design and Fundamentals of Mechanics* (5 ECTS), *Mechanical System Dynamics* (5 ECTS), *Laboratory of Mechatronics* (5 ECTS), *Control and Actuating Devices for Mechanical Systems* (9 ECTS) and *Mechatronic Systems and Laboratory* (10 ECTS). Presently he holds the courses of *Control and Actuating Devices for Mechanical Systems* at the first year of the Master's Degree in Mechanical Engineering, *Mechatronic Systems and Laboratory* at the second year of the Master's Degree in Mechanical Engineering and *Autonomous Vehicles* at the second year of the Master's Degree in Mobility Engineering. He has been supervisor of more than 230 Master theses and of more than 15 PhD students.

His research activity started with the modeling of complex contact phenomena such as the interaction between tire and road and between wheel and rail. This led to a big step forward in the comprehension of these phenomena as well as associated phenomena such as the prediction of wear and limit conditions (i.e., for the railway field, derailment and, for the automotive field, macro sliding for F1 tires). It was a natural evolution to expand research in the field of car and rail vehicle dynamics. More and more these vehicles include mechatronic components to improve active and passive safety, comfort and performance. Thus, research evolved towards mechatronic systems, both at basic research level and at component/system level. Most of the above researches were carried out in cooperation with leading industries in the respective field. Finally, he has modeled, designed and produced sports equipment in collaboration with the National Olympic Committee.

The above described researches have led, where allowed by NDAs, to more than 260 papers mainly at international conferences and on international journals. Making reference to Scopus database, Prof. Braghin is author of 76 journal papers and has an h-index equal to 22. He is also editor of "The Engineering Approach to Winter Sports" by Springer published in 2015.

Prof. Braghin has been in charge of or took part in several EU founded projects (the last of which is metVEH project on the development of the improved vibration energy harvesters that exploit metamaterials), a couple of national founded projects (the last of which dealing with "Acoustic cloaking") and several contracts with industries.

He is member of the Institute of Electrical and Electronics Engineers since 2008, of the American Society of Mechanical Engineers since 2009 and of the Italian Tribology Association since 2005.