

Advances in Smart Structures, Technologies and Applications Within the Development of Green Engineering Solutions

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Abstract: This seminar will illustrate recent developments of smart structures in the field of energy harvesting and structural monitoring from mathematical modelling to experiments involving fluid/structure and piezoelectric coupled interactions. Some solutions will be proposed for the monitoring of the towers and pylons of the infrastructures of telecom, tv broadcasting and energy transmission lines. The topics of this seminar are framed along the lines of development of the Department of Mechanical and Aerospace Engineering of La Sapienza. The Department aims to realize Green Engineering solutions for the challenges posed by societal demands.

Bio: *Dr. Paolo Gaudenzi earned his PhD in Aerospace Engineering in 1989 with a thesis on higher-order modeling of composite plates. Since then, he has been involved in research activities covering the field of computational mechanics, composite and smart structures, aerospace structures, space systems and advanced manufacturing. As a full professor since 2000 at Sapienza University of Rome, Gaudenzi was promoted and became Director of Master in Satellite Systems from 2002 to 2021. Gaudenzi was also the Coordinator for PhD studies in Aerospace Engineering from 2010 to 2016 and the Head of the Department of Mechanical and Engineering from 2016 to 2022. He has served in the Academic Senate of Sapienza in many scientific and institutional boards, including the boards of experts from the Ministry of Industry and the Italian Prime Ministry for Aeronautics and Space. Since Sept. 2023 he has acted as Science and Technology counselor for the Consulate General of Italy in Boston.*

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