



**ADMISSION TO DOCTORAL STUDIES**

**Session September 2022**

**Field of doctoral studies: MECHANICAL ENGINEERING**

**Doctoral supervisor: Prof. Dr. Eng. Simona Lache**

**TOPICS FOR THE ADMISSION TO DOCTORAL STUDIES**

**TOPIC 1: Mechanical structures with variable stiffness**

**Recommended bibliography:**

1. Daynes, S., Weaver, P.M., 2013, Stiffness tailoring using prestress in adaptive composite structures, *Composite Structures* Vol. 106, pp. 282–287;
2. Kuder, I.K., Arrieta, A.F., Raither, W.E., Ermanni, P., 2013, *Variable stiffness material and structural concepts for morphing applications*, *Progress in Aerospace Sciences*, Vo. 63, pp. 33-55;
3. Overvelde, J. T. B., Weaver, J. C., Hoberman, C., Bertoldi, K., 2017, *Rational design of reconfigurable prismatic architected materials*, Macmillan Publishers Limited, part of Springer Nature;
4. Santer, M., Pellegrino, S., 2008, Compliant multistable structural elements, *International Journal of Solids and Structures* Vol. 45, pp. 6190–6204.
5. Zenkert, D., 1997, *The handbook of sandwich construction*, EMAS Publ.

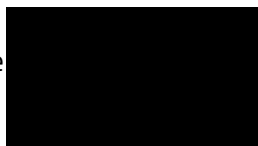
**Prerequisites:**

good knowledge of Strength of Materials and Elasticity Theory; Finite Element Method.

**Doctoral supervisor,**

Prof. Dr. Eng. Simona Lache

Signature



**Coordinator of the field of doctoral studies,**

Prof. Dr. Eng. Sorin Vlase

Signature

