



ADMISSION TO DOCTORAL STUDIES

Session September 2022

Field of doctoral studies: MATERIALS ENGINEERING

Doctoral supervisor: Assoc. Prof. Nicolae CRETU

TOPICS FOR THE ADMISSION TO DOCTORAL STUDIES

TOPIC 1: *MATHEMATICAL AND COMPUTATIONAL METHODS USED IN SOME SIMULATIONS REFERRING TO THE ELASTIC WAVES AND PULSES PROPAGATION IN INHOMOGENEOUS AND MULTILAYER MEDIA*

Recommended bibliography:

1. Some Theoretical and Experimental Extensions Based on the Properties of the Intrinsic Transfer Matrix

[Cretu, N.](#), [Pop, M.-I.](#), [Andia Prado, H.S.](#), *Materials*, 2022, 15(2), 519

2. Higher order statistical frequency domain decomposition for operational modal analysis [Nita, G.M.](#), [Mahgoub, M.A.](#), [Sharyatpanahi, S.G.](#), [Cretu, N.C.](#), [El-Fouly, T.M.](#)

Mechanical Systems and Signal Processing, 2017, 84, pp. 100–112

3. Measurements of wave velocity in wood samples using the intrinsic transfer matrix

[Cretu, N.](#), [Budău, G.](#) *Bulletin of the Transilvania University of Brasov, Series II: Forestry, Wood Industry, Agricultural Food Engineering*, 2017, 10(1), pp. 37–42

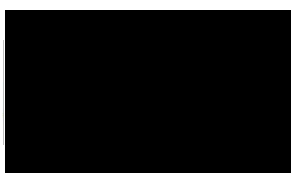
4. Intrinsic transfer matrix method and split quaternion formalism for multilayer media

[Pop, M.-I.](#), [Cretu, N.](#) *Wave Motion*, 2016, 65, pp. 105–111

Doctoral supervisor,

Assoc.Prof. Dr.Nicolae CRETU

Signature



Coordinator of the field of doctoral studies,

Prof. Dr Mircea TIEREAN

Signature

