

L I S T A L U C R Ă R I L O R Ș T I I N Ț I F I C E

A. Lista 10 lucrări relevante

1. **Scheaua F., D.**, *Comparative numerical analysis on vertical wind turbine rotor pattern of Bach and Benesh type*. Energies, 2020, 13.9: 2311.
2. **Scheaua F., D.**, Goanta A. M., Dragan N., *Review of Specific Performance Parameters of Vertical Wind Turbine Rotors Based on the SAVONIUS Type*. Energies, 2021, 14.7: 1962.
3. **Scheaua F., D.**, *Composed Isolation System Concept for Vibration Effects Mitigation on Bridge Structures*. In: Acoustics and Vibration of Mechanical Structures—AVMS 2019. Springer, Cham, 2021. p. 473-483.
4. **Scheaua F., D.**, Nastac, S. *On Dynamics of a Dual Vibration Insulation Device Based on Elastomeric Kernel and Rolling Friction Dissipation*, In: Acoustics and Vibration of Mechanical Structures, AVMS-2017. Springer, Cham, 2018. p. 397-403.
5. **Scheaua F., D.**, *Improvement of structures seismic response based on pendulum systems with double sliding surface*. In: IOP Conference Series: Materials Science and Engineering. IOP Publishing, 2020. p. 012102.
6. **Scheaua F., D.**, *Theoretical approaches regarding the VENTURI effect*, Revista Hidraulica, 2016, 69.
7. **Scheaua F., D.**, *Modelling of the visco-elastic pendular hybrid system with dissipative rolling elements*, In: IOP Conference Series: Materials Science and Engineering. IOP Publishing, 2019. p. 012029.
8. **Scheaua F., D.**, *Viscous fluid dissipation system model acting on the active principle*, In: IOP Conference Series: Materials Science and Engineering. IOP Publishing, 2019. p. 012068.
9. **Scheaua F., D.**, *The use of COANDA EFFECT in air circulation for acquiring lifting force of an UAV model*, In: Journal of Physics: Conference Series. IOP Publishing, 2019. p. 012029.
10. **Scheaua F., D.**, *An alternative for wind energy conversion using improved Savonius rotor turbine model*, In: IOP Conference Series: Materials Science and Engineering. IOP Publishing, 2021. p. 012069.

B. Teza de doctorat

1. **Analiza comportării sistemelor de disipare cu frecare uscată la acțiuni dinamice**, 2013, Universitatea "Dunărea de Jos" din Galați, domeniul Inginerie mecanică, îndrumător științific Prof. dr. ing. dr. h. c. Polidor BRATU, Membru Titular al Academiei de Științe Tehnice din România

C. Cărți și capitole în cărți publicate

- 1) Adrian Sorin Axinti, **Scheaua, F. D.**, *Introducere în hidraulica industrială*, Editura Galati University Press (GUP), ISBN 978-606-696-032-8, 2015
- 2) **Scheaua F., D.**, *Aplicații practice de mecanica fluidelor și echipamente hidraulice*, Editura Galati University Press (GUP), ISBN 978-606-696-125-7, 2018
- 3) **Scheaua F., D.**, *Sisteme hidrostatice disipative cu utilizare în izolarea seismică a structurilor de construcții*, Editura Galati University Press (GUP), ISBN 978-606-696-135-6, 2018
- 4) **Scheaua F., D.**, *Sisteme pendulare mecanice de izolare contra efectelor acțiunilor seismice asupra structurilor de construcții*, Editura Galati University Press (GUP), ISBN 978-606-696-152-3, 2019
- 5) **Scheaua F., D.**, *Mecanica fluidelor și echipamente hidraulice*, Editura Galati University Press (GUP), ISBN 978-606-696-233-9, 2022

- 6) **Scheaua F., D.**, Năstac S., M., *Introducere în hidraulica Industrială-Aplicații*, Editura Galati University Press (GUP), ISBN 978-606-696-240-7, 2022

D. Articole/studii în extenso, publicate în reviste din fluxul științific internațional principal

- 1) **Scheaua, F. D.**, Axinti, G., “*Seismic protection of structures using hydraulic damper devices*”, The Annals of “Dunarea de Jos” University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Galați, 2010, pag. 91-94
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- 5) **Scheaua, F. D.**, Axinti, G., *Influence of structure mass on the behavior of seismic energy hydraulic dissipation devices*, The Annals of “Dunarea de Jos” University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol II, 2012
- 6) **Scheaua, F.D.**, Nedelcut, F., *Energy Dissipation Device Using Fluid Dampers*, The Annals of “Dunarea de Jos” University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol II, 2012
- 7) **Scheaua, F.D.**, Axinti A., S., Axinti G., *Mathematical model analysis on hydraulic energy dissipation devices*, Revista Hidraulica, (2/2012), (pag. 38-42), ISSN 1453-7303
- 8) **Scheaua, F.D.**, *Experimental Dynamics Of A Bridge Deck Isolated With Rolling Pendulum System (Rps)*, The Annals of “Dunarea de Jos” University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol II, 2013
- 9) **Scheaua, F.D.**, *Considerations On Functional Parameters Of Dry Friction Seismic Isolation Systems*, The Annals of “Dunarea de Jos” University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol I, 2014
- 10) **Scheaua, F.D.**, *General Working Principles For Agricultural Tractor With Ploughing Equipment*, The Annals of “Dunarea de Jos” University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol I, 2014
- 11) **Scheaua, F.D.**, *Principle Of Elastomeric Supports As Antiseismic Isolation Systems*, The Annals of “Dunarea de Jos” University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol II, 2014
- 12) **Scheaua, F.D.**, *Functional Aspects For Antiseismic Double Sliding Isolation Systems*, The Annals of “Dunarea de Jos” University of Galati, Fascicle XIV Mechanical Engineering, ISSN 1224-5615, Vol II, 2014
- 13) **Scheaua, F. D.**, Axinti, G., *Dynamic Hydraulic Dampers for Earthquake Isolated Structural Systems*, Romanian Journal of Acoustics and Vibration, RJAV, Volume VII, Issue 1, 2010
- 14) **Scheaua, F. D.**, *Seismic Isolators - Double Sliding Bearings*, Romanian Journal of Acoustics and Vibration, RJAV, Volume IX, Issue 2, 2012

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- 16) **Scheaua, F. D.**, *Assembly design optimization for gear pump hydraulic units*, Journal of Industrial Design and Engineering Graphics-JIDEG , Volume 7, Issue No. 1 - 2012
- 17) **Scheaua, F. D.**, *Considerations On Fluid Dynamics Inside A Hydraulic Seismic Energy Absorber*, Journal of Industrial Design and Engineering Graphics-JIDEG , Volume 8, Issue No. 1 - 2013
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- 19) **Scheaua F. D.**, *Viscous fluid dynamics inside a seismic energy absorber device*, 10th HSTAM International Congress on Mechanics Chania, Crete, Greece, 25 – 27 May, 2013
- 20) **Scheaua, F. D.**, *Model Of Hydraulic Suspension Mechanism For Agricultural Tractor*, Journal of Industrial Design and Engineering Graphics-JIDEG, Volume 9, Issue No. 1 – 2014
- 21) F. Nedelcut, **F. Scheaua**, *Geometrical Assumptions Regarding Viscous Fluid Dampers*, The annals of "Dunărea de Jos" university of Galati, fascicle XIV, Mechanical Engineering, ISSN 1224-5615 2015, Issue No. 1 - 2015
- 22) **Scheaua, F. D.**, *Aspects regarding rolling pendulum seismic isolation systems*, The annals of "Dunărea de Jos" university of Galati, fascicle XIV, Mechanical Engineering, ISSN 1224-5615 2015, Issue No. 1 - 2015
- 23) **Scheaua, F. D.**, *Sprayer Installation Attached To The Agricultural Tractor*, Journal of Industrial Design and Engineering Graphics-JIDEG, Volume 9, Issue No. 1, 2015
- 24) **Scheaua, F. D.**, *The use of numerical analysis in order to highlight the fluid dynamics inside a hydraulic gear pump model*, Journal of Industrial Design and Engineering Graphics-JIDEG, Volume 9, Issue No. 2, 2015
- 25) **Scheaua, F. D.**, *Aspects Regarding Fluid Viscous Anchoring Systems Used for Vibration Mitigation at Bridge Structures*, Revista Hidraulica, (2/2015), 4 (14-17), ISSN 1453-7303
- 26) **Scheaua, F. D.**, *Results obtained from testing a hybrid model of vibration isolation system*, The annals of "Dunărea de Jos" university of Galati, fascicle XIV, Mechanical Engineering, ISSN 1224-5615 2015, Issue No. 2 , 2015
- 27) **Scheaua, F. D.**, *Description of a Composed Seismic Isolation System for Bridge Structures*, Analele Universității “Eftimie Murgu”, Reșița, anul XXII, nr. 2, 2015, ISSN 1453 - 7397
- 28) **Scheaua, F. D.**, *Functional description of a hydraulic throttle valve operating inside a hydraulic circuit*, Revista Hidraulica, (1/2016), pag 47-50, ISSN 1453-7303
- 29) **Scheaua, F. D.**, *CFD Analysis of a wind turbine assembly model*, Revista Hidraulica, (2/2016), pag 64-69, ISSN 1453-7303
- 30) **Scheaua, F. D.**, *Theoretical approaches regarding the VENTURI effect*, Revista Hidraulica, (3/2016), pag 69-72, ISSN 1453-7303
- 31) **Scheaua, F. D.**, *Aspects regarding the special hydraulic distributors operation*, Revista Hidraulica, (4/2016), pag 27-32, ISSN 1453-7303
- 32) **Scheaua, F. D.**, *CFD analysis for hydraulic flow rate control device*, Journal of Industrial Design and Engineering Graphics-JIDEG, Volume 11, Issue No. 1, 2016
- 33) **Scheaua, F. D.**, *Agricultural field irrigation solution based on Venturi nozzle model*, Journal of Industrial Design and Engineering Graphics-JIDEG, Volume 11, Issue No. 2, 2016
- 34) **Scheaua, F. D.**, *Model of agricultural sprayer installation and nozzle operation*, Analele Universității “Eftimie Murgu” Reșița anul XXIII, nr. 1, 2016, pag 329-336 ISSN 1453 - 7397
- 35) **Scheaua, F. D.**, *An Interdisciplinary Analysis Regarding Economic and Social Development in the Rural Area of EU Member Countries from Central and Eastern Europe*, Proceedings of the International Conference on Interdisciplinary Studies (ICIS 2016) - Interdisciplinarity and Creativity

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- 37) **Scheaua, F. D.**, *Aspects regarding axial propeller pumps principle of operation*, ISSN 1454 - 8003 Proceedings of 2016 International Conference on Hydraulics and Pneumatics - HERVEX, November 9-11, Baile Govora, Romania
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- 39) **Scheaua, F. D.**, *Hydraulic frontal loader mechanism attached to an agricultural tractor*, The annals of "Dunărea de Jos" University of Galati, Fascicle XIV, Mechanical Engineering, ISSN 1224-5615, volume I, Issue XXVII, 2016
- 40) **Scheaua, F. D.**, *Design details for anti-seismic isolation system based on friction force*, The annals of "Dunărea de Jos" University of Galati, Fascicle XIV, Mechanical Engineering, ISSN 1224-5615, volume II, Issue XXVIII, 2016
- 41) **Scheaua, F. D.**, *Theoretical flow model through a centrifugal pump used for water supply in agriculture irrigation*, Journal of Industrial Design and Engineering Graphics-JIDEG, Volume 12, Issue No. 1, 2017
- 42) **Scheaua, F. D.**, *Design details and fluid flow analysis for the centrifugal pump with special rotor pattern*, Revista Hidraulica, (1/2017), pag 33-38, ISSN 1453-7303
- 43) **Scheaua, F. D.**, *Possibilities for agricultural farms of adopting and applying optimal energy recovery solutions from nearby water flows*, Revista Hidraulica, (2/2017), pag 68-71, ISSN 1453-7303
- 44) **Scheaua, F. D.**, *Hydro power solution with radial turbine based on medium flow rate water streams*, Revista Hidraulica, (3/2017), ISSN 1453-7303
- 45) **Scheaua, F. D.**, *Theoretical flow model through a centrifugal pump used for water supply in agriculture irrigation*, Revista JIDEG, Volumul 12, Issue 1, pag 193-196, Mai 2017
- 46) **Scheaua, F. D.**, Năstac, S., M., *On Dynamics of a Dual Vibration Insulation Device based on Elastomeric Kernel and Rolling Friction Dissipation*, Acoustics and vibration of mechanical structures - AVMS 2017 Conference proceedings, Timișoara, România, 25-26 Mai, 2017
- 47) **Scheaua, F. D.**, *Unmanned helicopter model used for aerial agricultural crops monitoring*, Revista JIDEG, Volumul 12, Issue 2, pag 25-28, Noiembrie 2017
- 48) **Scheaua, F. D.**, *Specific methods for acquiring controlled atmosphere for clean rooms used in industrial and medical domains*, Revista Hidraulica, (4/2017), ISSN 1453-7303
- 49) **Scheaua, F. D.**, *CFD Analysis for a thermal plant chimney system*, The annals of "Dunărea de Jos" University of Galati, Fascicle XIV, Mechanical Engineering, ISSN 1224-5615, volume I, Issue XXIX, 2017
- 50) **Scheaua, F. D.** *Metode de eficientizare a funcționării mașinilor și utilajelor de construcții pe baza acționărilor hidraulice*, Sinteze de mecanică teoretică și aplicată, Vol 8, nr. 4, p.253-258, 2017
- 51) **Scheaua, F. D.**, *Theoretical aspects regarding the pressure safety valves operation within a hydraulic circuit*, Revista Hidraulica, (1/2018), ISSN 1453-7303
- 52) **Scheaua, F. D.**, *Design details of a turbine model used for energy conversion in low flow rate water streams*, Revista Hidraulica, (2/2018), ISSN 1453-7303
- 53) **Scheaua, F. D.**, *Fluid flow particularities within hydraulic working circuit*, Revista Hidraulica, (3/2018), ISSN 1453-7303

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- 55) **Scheaua, F. D.**, *Viscous fluid dissipation system model acting on the active principle*. In: *IOP Conference Series: Materials Science and Engineering*. IOP Publishing, 2019. p. 012068.
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- 58) **Scheaua, F. D.**, *Comparative Numerical Analysis on Vertical Wind Turbine Rotor Pattern of Bach and Benesh Type*. *Energies*, 2020, 13.9: 2311.
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- 60) **Scheaua, F. D.**, *Practical method of obtaining different levels of seismic energy dissipation using viscous fluid protective system on bridges*. In: *IOP Conference Series: Materials Science and Engineering*. IOP Publishing, 2020. p. 012101.
- 61) **Scheaua, F. D.**, *Composed Isolation System Concept for Vibration Effects Mitigation on Bridge Structures*. In: *Acoustics and Vibration of Mechanical Structures—AVMS 2019*. Springer, Cham, 2021. p. 473-483.
- 62) **Scheaua, F. D.**, *Wind energy conversion within agricultural farm using vertical axis turbines of optimized SAVONIUS type*. In: *IOP Conference Series: Earth and Environmental Science*. IOP Publishing, 2021. p. 012015.
- 63) **Scheaua F. D.**, Goanta A. M., Dragan N., *Review of Specific Performance Parameters of Vertical Wind Turbine Rotors Based on the SAVONIUS Type*. *Energies*, 2021, 14.7: 1962.
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- 66) **Scheaua F. D.**, *Fluid Hammer Phenomenon Aspects on Circular Ducts*. *Hidraulica*, 2021, 1: 24-31.
- 67) Chiriță, A. P., Popescu, T. C., Bălan, I., Popescu, A. M., & **Scheaua F. D.**, *Analysis of the Dynamic Behaviour and Energy Efficiency of an Oscillating Hydraulic Pressure Intensifier*, *Hidraulica*, (1), 7-16, 2021.
- 68) Goanta, A. M., Dumitrache, P., & **Scheaua F. D.** *Modern digital techniques used in the communication of CAD knowledge under the 2021 pandemic*. *Journal of Industrial Design and Engineering Graphics*, 16(1), 27-32, 2021.
- 69) **Scheaua F. D.**, *An alternative for wind energy conversion using improved Savonius rotor turbine model*, *IOP Conference Series: Materials Science and Engineering*. Vol. 1182. No. 1. IOP Publishing, 2021.
- 70) **Scheaua F. D.**, *Coupling methods and optimal use of modern anti-seismic insulation systems at building and bridge construction structures*, *IOP Conference Series: Materials Science and Engineering*. Vol. 1182. No. 1. IOP Publishing, 2021.
- 71) **Scheaua F. D.**, *Experimental Results from Testing a Rolling Pendulum Base Isolation System at Bridge Structures Subjected by Dynamic Shocks and Vibrations*. In: *Acoustics and Vibration of Mechanical Structures—AVMS-2021*. Springer, Cham, 2022. p. 355-363.

72) **Scheaua, F. D.**, Main Constructive Solutions for Actual Wind Turbines Used for Green Power Generation. Hidraulica, 2022, 10.3.

E. Publicații în extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate

- 1) **Scheaua, F. D.**, *Sisteme de izolare anti-seismică a bazei structurilor de construcții – Reazeme de tip pendul cu fricțiune*, Sesiunea de comunicări științifice a catedrei de mecanică tehnică și mecanisme, Universitatea Tehnică de Construcții București, Facultatea de Utilaj Tehnologic, Catedra de Mecanică Tehnică și Mecanisme, Revista SIMEC 2011, Editura Matrix Rom, București, 2011
- 2) Axinti, G., **Scheaua, F. D.**, *"Dynamic hydraulic dampers for earthquake isolated structural systems"*, A 8-a Conferință internațională "ACUSTICĂ. VIBRAȚII. ACȚIUNI SEISMICE", Societatea Română de Acustică, Reșița, 21-23 octombrie 2009
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- 4) **Scheaua, F. D.**, *"Seismic Isolators - Double Sliding Bearings"*, The 10-th International Conference "Acoustics. Vibration", Romanian Acoustic Society, Petroșani, Romania, 29-30 September 2011
- 5) **Scheaua F. D.**, *Viscous fluid dynamics inside a seismic energy absorber device*, The 10th HSTAM International Congress on Mechanics, Chania, Crete, Greece, May 25 – 27, 2013
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- 7) **Scheaua, F. D.**, *An Interdisciplinary Analysis Regarding Economic and Social Development in the Rural Area of EU Member Countries from Central and Eastern Europe*, International Conference on Interdisciplinary Studies (ICIS 2016), Constanța, România, 10-11 Iunie, 2016
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Semnătura