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Habilitation thesis title: Research on the reliability, the accelerated testing and the additive manufacturing of industrial products

Domain: Industrial Engineering

PUBLICATIONS LIST

RELEVANT PAPERS

1. **Zaharia, S.M.**, Enescu, L.A., Pop, M.A., (2020). Mechanical Performances of Lightweight Sandwich Structures Produced by Material Extrusion-Based Additive Manufacturing, *Polymers*, vol. 12, 1740, ISSN: 2073-4360, **FI 3,426**, WOS:000564679500001, http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E4WSU2DcolteJD3P5cs&page=1&doc=1
2. **Zaharia, S.M.**, Chicoş, L.A., Lancea, C., Pop, M.A., (2020). Effects of Homogenization Heat Treatment on Mechanical Properties of Inconel 718 Sandwich Structures Manufactured by Selective Laser Melting, *Metals*, vol. 10, 645, ISSN: 2075-4701, **FI 2,117**, WOS:000540220000093, http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E4WSU2DcolteJD3P5cs&page=1&doc=5
3. **Zaharia, S.M.**, Pop, M.A., Udriou, R., (2020). Reliability and Lifetime Assessment of Glider Wing's Composite Spar through Accelerated Fatigue Life Testing, *Materials*, vol. 13, 2310, ISSN: 1996-1944, **FI 3,057**, WOS:000539277000102, http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E4WSU2DcolteJD3P5cs&page=1&doc=3
4. **Zaharia, S.M.**, (2019). The methodology of fatigue lifetime prediction and validation based on accelerated reliability testing of the rotor pitch links, *Eksplotacja i Niezawodność – Maintenance and Reliability*, vol. 21, no. 4, pp. 638–644, ISSN: 1507-2711, **FI 1,525**, WOS:000486626700012, http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E4WSU2DcolteJD3P5cs&page=1&doc=8
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6. Chicoş, L.A., **Zaharia, S.M.**, Lancea, C., Pop, M.A., Canadas, I., Rodriguez, J., Galindo, J., (2018). Concentrated solar energy used for heat treatment of Ti6Al4V alloy manufactured by selective laser melting, *Solar Energy*, vol.173, pp. 76-88, ISSN: 0038-092X, **FI 4,674**, WOS:000452940800007
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7. **Zaharia, S.M.**, Morariu, C.O., Nedelcu, A., Pop, M.A., (2017). Experimental Study of Static and Fatigue Behavior of CFRP-Balsa Sandwiches under Three-point Flexural Loading, *BioResources*, vol. 12, no. 2, pp. 2673 – 2689, ISSN: 1930-2126, **FI 1,202**, WOS:000402883700032
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PHD THESIS

Theoretical and experimental research regarding accelerated reliability tests, Transilvania University of Braşov, 2010.

PhD Supervisor: Prof. dr. ing. Ionel MARTINESCU

Domain: Industrial Engineering

PATENTS

1. **Zaharia, S.M.**, Stamate, V.M., (2020), Test bench of the fatigue strength of the blades and test method, No. RO 129022 B1.

BOOKS / BOOK CHAPTERS

1. **Zaharia, S.M.**, *Reliability and Maintenance Engineering : Theory, simulation techniques and applications*, LAP Lambert Academic Publishing House, Berlin, 2019, ISBN 978-620-0-28820-2, 140 pages.
2. **Zaharia, S.M.**, *Reliability, maintenance and testing of aerospace systems*, LAP Lambert Academic Publishing House, Berlin, 2019, ISBN 978-620-0-00390-4, 193 pages.
3. **Zaharia, S.M.**, Martinescu, I., *Reliability tests*, Transilvania University of Brasov Publishing House, Braşov, 2012, ISBN 978-606-19-0084-8, 180 pages.
4. **Zaharia, S.M.**, Martinescu, I., *Reliability and security of the industrial systems*, Printech Publishing House, Bucureşti, 2018, ISBN 978-606-23-0918-3, 276 pages.
5. Morariu, C.O., **Zaharia, S.M.**, *Reliability and testing of the bearings*, Printech Publishing House, Bucureşti, 2018, ISBN 978-606-23-0917-6, 277 pages.
6. **Zaharia, S.M.**, Morariu C.O., *Elements of the calculation of probabilities applied in the analysis of industrial risks, Theory and applications*, Risoprint Publishing House, Cluj – Napoca, 2017, ISBN 978-973-53-2117-8, 139 pages.
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JOURNAL ARTICLES

ISI/CLARIVATE ANALYTICS JOURNAL

1. **Zaharia, S.M.**, Enescu, L.A., Pop, M.A., (2020). Mechanical Performances of Lightweight Sandwich Structures Produced by Material Extrusion-Based Additive Manufacturing, *Polymers*, vol. 12, 1740, ISSN: 2073-4360, **FI 3,426**, WOS:000564679500001, http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=E4WSU2DcolteJD3P5cs&page=1&doc=1
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5. Pascariu, I.S., **Zaharia, S.M.**, (2020). Design and Testing of an Unmanned Aerial Vehicle Manufactured by Fused Deposition Modeling, *Journal of Aerospace Engineering*, vol. 33, no.4, 06020002, ISSN: 0893-1321, **FI 1,761**, WOS:000536130300006

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6. **Zaharia, S.M.**, (2019). The methodology of fatigue lifetime prediction and validation based on accelerated reliability testing of the rotor pitch links, *Eksploatacja i Niezawodnosc – Maintenance and Reliability*, vol. 21, no. 4, pp. 638–644, ISSN: 1507-2711, **FI 1,525**, WOS:000486626700012,

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12. **Zaharia, S.M.**, Lancea, C., Chicoş, L.A., Pop, M.A., Caputo, G., Serra, E., (2017) Mechanical properties and corrosion behaviour of 316L stainless steel honeycomb cellular cores manufactured by selective laser melting. *Transactions of FAMENA*, vol. 41, no. 4, pp. 11–24, ISSN: 1333-1124, **FI 0,797**, WOS:000431808800002

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13. **Zaharia, S.M.**, Pop, M.A., Semenescu, A., Florea, B., Chivu, O.R., (2017). Mechanical Properties and Fatigue Performances on Sandwich Structures with CFRP Skin and Nomex Honeycomb Core, *Materiale Plastice*, vol. 54, no. 1, pp. 67-72, ISSN: 0025-5289, **FI 1,248**, WOS:000400629900016

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14. **Zaharia, S.M.**, Morariu, C.O., Nedelcu, A., Pop, M.A., (2017). Experimental Study of Static and Fatigue Behavior of CFRP-Balsa Sandwiches under Three-point Flexural Loading, *BioResources*, vol. 12, no. 2, pp. 2673 – 2689, ISSN: 1930-2126, **FI 1,202**, WOS:000402883700032

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2. **Zaharia, S.M.**, Ștefăneanu, R.I., (2016). CFD simulation and FEA analysis of a ballistic missile, Journal of Industrial Design and Engineering Graphics, vol. 11, no. 2, pp. 41-45, International data base: EBSCO, ProQuest.
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 3. **Zaharia, S.M.**, Ștefăneanu, R.I., (2016). Design and manufacturing process for a ballistic missile, Scientific Bulletin of the Nicolae Balcescu Land Forces Academy, no. 2, pp. 140-146, International data base: EBSCO, ProQuest.
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