

Prof. Lech Bukowski, Ph.D. international, D.Sc.

[Researchgate](#) [Google scholar](#) [Orcid](#)

The scientific fields of interests:

System Science, Systems Engineering, Risk Management and Governance, Quality, Reliability and Dependability Engineering, Safety, Security and Resilience Engineering, Industrial Logistics

Lech A. Bukowski is a professor for Management Engineering. He has published more than 230 scientific articles and he is the author or co-author of 12 monographs in Polish, English and German as well as six patents. He conducted many research and implementation works in the above mentioned areas, among others as the head of two international grants, five Polish grants and several dozen research and development projects in Poland and Germany.

Publications:

(only affiliated to WSB University)

Monographs and chapters in monographs

Bukowski L., et al. *Management of Logistics Systems*, (in Polish), AGH University of Science and Technology Press, Kraków 2014, ISBN 978-83-7464-707-6

Bukowski L., et al. *Quantitative Methods in Logistics Management*, AGH University of Science and Technology Press, Kraków 2014, ISBN: 978-83-7464-713-7

Bukowski L. *Ensuring continuity of supply in a changing and uncertain environment*, (in Polish), WN WSB, Dąbrowa Górnicza 2016, ISBN 978-83-64927-48-5

Bukowski L. *Modelling of disruptions to the continuity of logistics systems*, chapter in the monograph *Selected issues of applied logistics* Tom 3, AGH, Kraków 2016, pp. 43-54, ISBN 978-83-7464-912-4

Bukowski L., Feliks J. *Logistic network dependability evaluation – business continuity oriented approach*, chapter in the monograph *Advances in intelligent systems and computing*, Springer International Publishing AG 2017, pp. 308-317, ISBN 978-3-319-48943-8

Bukowski L., Sobczak P. (editors) *Logistics aspects of business*, (in Polish), WN WSB, Dąbrowa Górnicza 2017, ISBN 978-83-65621-42-9

Bukowski L., Sobczak P. (editors) *Logistics the future challenge (in Polish)*, WN WSB, Dąbrowa Górnicza 2017, ISBN 978-83-65621-32-0

Bukowski L. *Reliable, Secure and Resilient Logistics Networks. Delivering products in a risky environment*, Springer Nature Switzerland AG 2019, ISBN 978-3-030-00849-9 (Hardcover), ISBN 978-3-030-00850-5 (eBook)

Bukowski L. *Modelling resilience of complex engineered systems using service continuity approach*, chapter in the monograph *Critical Service continuity, Resilience and Security*, EUR 29989; EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-13359-9, doi:10.2760/23760, JRC118427, pp. 156-168

Bukowski L. *Ensuring business continuity - the concept of a resilient enterprise*, chapter in the monograph *Logistics systems in management - implementation of modern solutions*, (in Polish), Wydawnictwo Społecznej Akademii Nauk, Łódź 2019, Studia i Monografie nr 105, pp. 7-20, ISBN: 978-83-64971-82-2

Bukowski L. *A transdisciplinary perspective on organisational improvement*, chapter in monograph edited by M. Lisiński: *From Tradition to Modernity. Contemporary continuation of the work of Karol Adamecki, Edwin Hauswald and Piotr Drzewiecki*, (in Polish), Wydawnictwo Naukowe Akademii WSB, Dąbrowa Górnicza 2020, str. 11-24, ISBN 978-83-65621-74-0 and ISBN 978-83-65621-96-2 (e-book)

Bukowski L., Buchwald P., Anus A. *Biometric monitoring of human cognitive abilities as a factor increasing the level of reliability of anthropo-technical systems*, chapter in monograph edited by: Nowakowski, T., Rosiński, A., Siergiejszyk, M., *Reliability problems of technical systems - theory and applications*, (in Polish), Oficyna Wydawnicza Politechniki Warszawskiej 2021, str. 37-50, ISBN 978-83-8156-225-6

Publications in scientific journals and proceedings (only in English)

Bukowski L. *Managing disruption risks in the global supply networks – a transdisciplinary approach*, Proceedings of International Conference on Industrial Logistics, Croatia 6.2014, pp. 101-106

Bukowski L., Feliks J. *A unified model of systems dependability and process continuity for complex supply chains*, w *“Safety and Reliability: Methodology and Applications”*, 2015 Taylor & Francis Group, A Balkema Book, London, pp. 2395-2403

Bukowski L., Feliks J. *Fuzzy logic expert system for supply chain resilience modelling and simulation*, Proceedings of 48 ESReDA Seminar on Critical Infrastructures Preparedness, Wrocław 28-29.05.2015, S22-4, pp. 1-12

Bukowski L. *Concept of the generalized model of quantitative risk assessment*, Forum Scientiae Oeconomia, 3(2015), No 2, pp. 5-16

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Bukowski L., Feliks J., Majewska K. *Modelling and simulation of disruption risk in the complex logistic networks – a multimethod approach*, w *“Safety and Reliability of Complex Engineered Systems”*, 2015 Taylor & Francis Group, A Balkema Book, London, pp. 3911-3918

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Bukowski L., Feliks J., Majewska K. *A modeling framework for the resilience analysis of steel mill logistic supplying systems*, Proceedings of the 25-th International Conference on Metallurgy and Materials “Metal 2016”, Brno 25-27.05.2016, 2017, pp. 1613-1619, ISSN 978-80-87294-67-3

Bukowski L., Feliks J. *Assessment of supplier’s risk in logistics networks*, Proceedings of the 6th Carpathian Logistics Congress – CLC 2016, Zakopane 28-30.11.2016, pp. 12-19, ISBN: 978-80-87294-76-5

Bukowski L., Feliks J. *Imperfect knowledge based prediction of disruption risk in large scale complex systems, w "Safety and Reliability – Theory and Applications" – Cepin & Briš (Eds) © 2017 Taylor & Francis Group, London, pp. 191-198, ISBN 978-1-138-62937-0*

Bukowski L. *Assessment of disruption risk based on the knowledge maturity concept*, Proceedings of the 29th European Safety and Reliability Conference (ESREL 2019); Edited by Michael Beer and Enrico Zio; pp. 163-171; 2019 European Safety and Reliability Association. Published by Research Publishing, Singapore. ISBN: 978-981-11-2724-3; doi:10.3850/978-981-11-2724-3 0059-cd

Bukowski L., Sobczak P. *Resilience assessment of heterogeneous complex transport networks – a general framework and a case study*, Proceedings of the 29th European Safety and Reliability Conference (ESREL 2019); Edited by Michael Beer and Enrico Zio; pp. 1381-1389; 2019 European Safety and Reliability Association. Published by Research Publishing, Singapore. ISBN: 978-981-11-2724-3; doi:10.3850/978-981-11-2724-3 0059-cd

Bukowski L. *Logistics decision-making based on the maturity assessment of imperfect knowledge*, **Engineering Management in Production and Services**, ISSN: 2543-6597 (print), 2543-912X (online), Vol 11, Issue 4 – 2019, pp. 65-79

Bukowski L., Feliks J., Karkula M. *Logistics networks vulnerability - modelling and simulation approach*, International Conference on Automotive Industry 2020, Mladá Boleslav, Czech Republic, pp. 71-79; ISBN: 978-80-7654-016-3 (Print), 978-80-7654-015-6 (Online); ISSN: 1803-5248 (Print), 2694-9857 (Online)

Bukowski L., Werbińska-Wojciechowska S. *Resilience based maintenance: a conceptual approach*, PSAM 2020 – Probabilistic Safety Assessment and Management Conference, 1-6.11.2020, Venice, *Proceedings of the 30th European Safety and Reliability Conference and the 15th Probabilistic Safety Assessment and Management Conference* Edited by Piero Baraldi, Francesco Di Maio and Enrico Zio, pp. 2885-2892; ISBN: 978-981-14-8593-0; doi:10.3850/978-981-14-8593-0

Werbińska-Wojciechowska S., Bukowski L. *Maintenance of technical systems under condition of significant uncertainty – the Resilience-Based-Maintenance concept*, Materials of the XLIX Reliability Winter School *Reliability of technical systems*, Warszawa 2021, pp. 41-42; ISBN 978-83-8156-226-3

Bukowski L., Buchwald P., Anus A. *Increasing the dependability of logistics systems through biometric monitoring of the human factor*, Materials of the XLIX Reliability Winter School *Reliability of technical systems*, Warszawa 2021, pp. 11-12; ISBN 978-83-8156-226-3

Bukowski L., Werbińska-Wojciechowska S. *Using fuzzy logic to support maintenance decisions according to Resilience-Based Maintenance concept*, *Eksploatacja i Niezawodność – Maintenance and Reliability*, **ISSN 1507-2711**; 2021; 23 (2): 294–307, <http://doi.org/10.17531/ein.2021.2.9>.

Andrzejczak K, Bukowski L. *A method for estimating the probability distribution of the lifetime for new technical equipment based on expert judgement*. *Eksploatacja i Niezawodność – Maintenance and Reliability* 2021; 23 (4): 757–769, <http://doi.org/10.17531/ein.2021.4.18>.

Bukowski L., Sobczak P. *Creating Reliable and Resilient Logistics Organizations for unpredictable conditions and unexpected future*, *European Research Studies Journal*, 2021, in press

Projects:

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Bukowski L. *Ensuring continuity of supply in a changing and uncertain environment (in Polish)*, 2014 – 2016, published in 2016 by WN WSB, Dąbrowa Górnicza 2016, ISBN 978-83-64927-48-5

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Bukowski L. *Cognitive Dependability Engineering: Managing Risks in Cyber-Physical-Social Systems under Deep Uncertainty*, 2019 – 2021, will be published by CRC Press Taylor & Francis Group, ISBN: 9780367897307 HB; 9781003020752 EB (eBook), ongoing research

