PhD Marzena Graboń-Chałupczak

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The scientific fields of interests: Diploma in Engineering and Master's Degree in rail vehicle maintenance, Master's Degree in mathematics. Ph.D. in machine construction and operation. Scientific interests include rail transport safety and risk management processes, the use of elements of probability theory and statistics in the analysis of reliability and durability of technical objects, in particular railway vehicles.

The scientific area of interest also includes elements of didactics, cooperation with the student, transfer of experience and involvement of young people in a practical broadening of their knowledge. During the classes, she encourages students to solve problems using the elements of problem-based learning. She is the organizer and lecturer of trainings and workshops for railway carriers, infrastructure managers and entities responsible for maintenance in the field of railway transport safety, including safety and maintenance management systems, risk management and assessment of the significance of change.

The research project contribution:

Her research projects use elements of probability theory in the scope of planning and optimization of railway vehicle maintenance processes. She is the organizational manager in the project regarding the selection of the optimal route for electric cars. She participates in numerous research and service projects in the field of increasing the level of safety in rail transport.

She is an expert in the substantive evaluation of projects financed by the National Centre for Research and Development and the Foundation for Polish Science. She is the author of expert studies on railway safety and operation for the Office of Rail Transport and the Supreme Audit Office.

She is a promoter of student work using an engineering approach to proposing various hypotheses regarding the causes of a given situation and possible solutions.

Publications:

Sitarz M., Graboń M.: Railway level of security in Poland in 2015 roku, TTS Technika Transportu Szynowego R 23 Nr 11/2016, s. 21-28

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Graboń-Chałupczak M., Sitarz M.: Application of RAMS analysis in road transport, Gambit 2018 MATEC Web of Conferences 231, 04004 (2018) https://doi.org/10.1051/matecconf/201823104004

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Graboń-Chałupczak M.: Reliability as an element of process in managing a fleet of railway vehicles, Journal of Konbin, Safety and Reliability Systems, ISSN 1895-8281

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