



doc. Ing. Lydia Sobotová, PhD.

Associate Professor

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CURRICULUM

1979-1983	Technical University of Košice, Faculty of Mechanical Engineering
1983	Ing., in field 23-08-8 Engineering technologies
1984-1987	internal aspirant TU in Košice, Faculty of Mechanical Engineering, Department of
1987-1989	technologies and materials
1989-2011	Researcher
1992	Assistant Professor
1992	CSc., 23-07-9 Engineering Technology
	PhD. - Certificate of entitlement to use the scientific and academic rank of PhD. –
2010	Annex to diploma No 11855
2012	doc., in field 5.2.7 Engineering technologies and materials
	Associate Professor

LANGUAGE SKILLS

- English language
- Russian language
- Hungarian language

SCIENTIFIC ORIENTATION

- metal forming, prediction of the technological formability of steel sheets,
- testing the material properties of sheets and plastics,
- optimization of technological processes,
- progressive technologies - joining materials, thermal drilling,
- progressive technologies - laser and plasma technologies and their impact on the environment,
- progressive technologies - water jet technologies and their impact on the environment,
- environmental engineering - the impact of engineering production on the environment,

- recycling and recycling technologies,
- environmental engineering, processing of waste from automobile production,
- recycling of plastics and their use in practice,
- environmental engineering – thermal - insulating properties of materials.

PEDAGOGICAL ACTIVITIES

- **leading lectures on engineering technology subjects:** Theory of Forming (SjF), Expertise in Forming and Casting (SjF), Progressive Manufacturing Technologies (SjF), Theory of Progressive Technologies (SjF), Forensic Engineering (SjF), Structure and Properties of Materials (SjF), Product certification (SjF), Measurement and testing (SjF), Damage analysis (SjF),
- **leading lectures on subjects from environmental science:** Environmental workplace safety (SjF), Environment and engineering production (SjF), Environment and industrial production (SjF), Plastic recycling (SjF), Environmental protection and management systems (SjF), Environmental engineering (SjF), Legislative aspects of production (SjF), Ecology and environmental protection (SjF), Environmental and social engineering (SjF), Environmental studies and recycling in automotive production (SjF), Health impact assessment (SjF), Quality assessment of production operations (SjF), Teamwork (SjF),
- **leading lectures in English language:** Basic of Mechanical Engineering (SjF), Structure and Material Properties (SjF), Environmental Engineering (SjF), Environmentalistics and Recycling in Automotive (SjF), Ecology and Environmental Protection (SjF), Environmental and Social Engineering (SjF)
- **supervisor:** 4 PhD. students

PROJECTS (COORDINATOR, CO-SOLVER)

Co-solver for the period 2002-2012:

VEGA

Project name: Optimization of production of mouldings from high-rigid steel sheets.

Project number: No 1/7637/02.

Project solution time: 2000-2003

Project name: Research on ductility limits and addiction models" voltage-deformation" thin steel sheets in various voltage-deformation states

Project Number: No 1/938702/03

Project Resolution Time: 2003

Project name: Research on conditions affecting cut-out deformations of thin, surface and treated steel sheets

Project number: No 1/0725/08

Project Resolution Time: 2008

Project name: Research and development of prototype mould for pressing small parts

Project number: No 1/0725/08

Project time: 2007 - 2008

Project name: Research and optimization of methods of evaluation of strength and plastic properties very thin packaging sheets.

Project No: No 1/0396/11.

Project solution time: 2011 – 2012

Project name: Research of influence of chosen parameters of working environment on working power and productivity

Project number: No. 1/0537/15

Project Resolution Time: 2015 – 2017

Project name: Development of methods for increasing the acoustic quality of product sound by visualization and psychoacoustic methods.

Project number: No. 1/0485/2022

Project Resolution Time: 2022 – 2024

KEGA

Project name: Creation of complex education – didactic material for the subject Production technology using a combination of classical and modern information technologies and e-learning

Project Number: No. 023 TUKE -4/ 2012

Project solution time: 2012- 2014

Project name: Using of the results of Scientific-research activities in teaching process of "Fundamentals of Environmental" and "Environmental Engineering" with using of Multimedia Technology

Project Number: No. 049TUKE-4/2012

Project solution time: 2012 - 2015

Project name: Transfer of knowledge from scientific-research activities into multimedia education process in the subject "Environment and manufacturing"

Project Number: No. 048TUKE-4/2015

Project solution time: 2015 - 2018

Project name: Transfer of the latest findings of research into processing textbook "Environmental aspects of design engineering objects - Ecodesign"

Project Number: No. 045TUKE-4/2018

Project solution time: 2018 – 2020

Project name: Transfer of knowledge from scientific - research activities from field of products disassembly and recycling into processing of the university textbooks.

Project Number: No. 041TUKE-4/2018

Project solution time: 2018 – 2020

Project name: Implementation of the latest knowledge from recycling technologies for material recovery of product components at the end of their life cycle

Project Number: No. 009TUKE-4/2021

Project solution time: 2021 – 2023

Project name: Implementation of the results of scientific research into the elaboration of a modern university textbook "Psychoacoustics - sound quality and acoustic design of products".

Project Number: No. 013TUKE-4/2022

Project solution time: 2022 – 2024

APVV

Project name: Development and research of methods for optimizing the acoustic properties and acoustic quality of noise-emitting devices

Project Number: No. APVV – 15-0327

Project solution time: 2016-2020

Park TECHNICOM

Project name: University science park TECHNICOM for innovative applications with the support of knowledge technologies

Project Number: No. ITMS 26220220182

Project solution time: 2015 – 2016-

Project name: Program for education and increasing the number of doctoral students at TUKE

Project Number: No. ITMS 26220230093 (package 2)

Project solution time: 2014 – 04/2015

Project name: Innovation of study programs for the labour market and creation of study programs in a world language

Project Number: No. ITMS 26220230070 (package 4)

Project solution time: 2014 – 04/2015

RF – Recycle fond

Project name: Integrated research platform for valorisation of individual elements of waste, especially from the automotive industry, methodologies for optimizing acoustic properties and acoustic quality of noise-emitting devices

Project Number: No. RF 020110003/17

Project solution time: 2017 – 2018

UNIVNET

Project name: University and Industry Research-Education Platform of the Recycling Society, Part I

Project Number: No. 0201/0004/20

Project solution time: 2020 – 2022

Project name: University and Industry Research-Education Platform of the Recycling Society, Part II

Project Number: No.

Project solution time: 2022-2026

MEMBERSHIPS, AWARDS

- Secretary and Member of the Company: Slovak Association of Mechanical Engineers- SASI, SASI Club at the Faculty of Mechanical Engineering of the TU in Košice.
- ESFRI (European Strategy Forum on Reserch Infrastructures) - Európske strategické fórum o výskumných infraštruktúrach od r. 2020 - doteraz

FOREIGN STAYS

1987	Brno, Czech Republic
2006	Rzeszow, Republic of Poland
2013	Nyiregyháza, Republic of Hungary
2016, 2017	Szeged, Republic of Hungary,
2015	Munich, German Republic
2015	Kyiv, Republic of Ukraine
2022	Budapest, Republic of Hungary
2019	Kraków, Republic of Poland
2021, 2022	Lublin, Republic of Poland

THE MOST IMPORTANT PUBLICATIONS

- [1]. BADIDA, Miroslav - SOBOTOVÁ, Lýdia - KRÁLIKOVÁ, Ružena - DZURO, Tibor - MORAVEC, Marek: **Environmentálne aspekty navrhovania strojárskych objektov - Ekodizajn** - 1. vyd. - Košice: Technická univerzita v Košiciach - 2020. - 371 s. [print]. - ISBN 978-80-553-3590-2.
- [2]. SOBOTOVÁ, Lýdia - BADIDA, Miroslav - DZURO, Tibor: **Demontážne a recyklačné technológie v automobilovom priemysle** - 1. vyd. - Košice: Technická univerzita v Košiciach - 2021. - 373 s. [print]. - ISBN 978-80-553-3589-6.
- [3]. BADIDA, Miroslav - GOMBÁR, Miroslav - MAŠLEJOVÁ, Alica - SOBOTOVÁ, Lýdia - KMEC, Ján - VAGASKÁ, Alena: **Evaluation of zinc coating quality by statistical methods** - 2015. In: Przemysl Chemiczny. Vol. 94, no. 12 (2015), p. 2146-2149. - ISSN 0033-2496 Access method: <http://www.sigma-not.pl/czasopisma-62-przemysl-chemiczny.html>.
- [4]. SOBOTOVÁ, Lýdia - BADIDA, Miroslav - MORAVEC, Marek - BADIDOVÁ, Anna - MAŠLEJOVÁ, Alica: **New Findings in the Field of Thermal Drilling of Aluminum Alloys** - 2020. In: Materials. - Basel (Švajčiarsko): Molecular Diversity Preservation International Roč. 13, č. 21 (2020), s. [1-17] [online]. - ISSN 1996-1944 (online) Access method: <https://www.mdpi.com/1996-1944/13/21/5007>.
- [5]. MORAVEC, Marek - BADIDA, Miroslav - MIKUŠOVÁ, Nikoleta - SOBOTOVÁ, Lýdia - ŠVAJLENKA, Jozef - DZURO, Tibor: **Proposed options for noise reduction from a wastewater treatment plant: Case study** - 2021. In: Sustainability. - Bazilej (Švajčiarsko): Multidisciplinary Digital Publishing Institute Roč. 13, č. 4 (2021), s. [1-22] [online]. - ISSN 2071-1050 (online).
- [6]. GUMANOVÁ, Veronika - SOBOTOVÁ, Lýdia - DZURO, Tibor - BADIDA, Miroslav - MORAVEC, Marek: **Experimental survey of the sound absorption performance of natural fibres in comparison with conventional insulating materials** 2/022. In: Sustainability. - Bazilej (Švajčiarsko) : Multidisciplinary Digital Publishing Institute Roč. 14, č. 7 (2022), s. [1-16] [online]. - ISSN 2071-1050 (online) Access method: <https://www.mdpi.com/2071-1050/14/7/4258>