Doc. Ing. Ludmila Kučerová, Ph.D.

Name:	Ludmila	Maiden name:	Skálová
Surname:	Kučerová	Phone:	+420 605703670
Birthday:	6.8.1977	Nationality:	Czech
Residence:	Lužická 19, Pilsen, Czechia	e-mail:	skal@rti.zcu.cz

Education:

2011	**University of West Bohemia in Pilsen,** Field of study: Mechanical Engineering Title: Associate Professor (Doc.)
2008	**University of Bath,** Dept. of mechanical Engineering, UK, Internship – shadow visit, Leonardo da Vinci programme
2001-2006	**University of West Bohemia in Pilsen,** Field of study: Mechanical Engineering Title: PhD
2006	**University of Birmingham,** UK, Course for academics lecturing technical subjects in English , Germany – Program Leonardo da Vinci
1995-2001	**University of West Bohemia in Pilsen,** Field of study: Mechanical Engineering Title: Ing.
1998-1999	**University of Oulu,** Finland (4 months, Erasmus project)
1997-1998	**The Manchester Metropolitan University**, UK (8 months, Tempus project)

Work experiences:

09/2003 - present **The University of West Bohemia in Pilsen**

2011-present: Regional Technological Institute: Head of laboratory of Metallography, Head of research program Forming technology, senior researcher

- preparation and coordination of research projects
- management of laboratory
- leading three teams of students and young researchers cooperating with industry as a mentor in three projects Zéta (TAČR), leading two teams of students in university grants for student research work
- research and design of progressive types of AHS steels
- development and optimisation of innovative heat and thermomechanical treatments
- light microscopy, laser scanning confocal microscopy, scanning electron microscopy of AHS steels, in-situ experiments for microstructure characterisation

2006-2011: Researcher in Research Centre of Forming Technology: researcher

- Development and metallography of various types of AHS steels
- Metallography-based contractual research for industry

2003-present: Department of Material Science (2003-present): academic worker, associate professor

- Lecturer of subjects connected with material science, materials for energetic and physical metallurgy of metals
- Bachelors, Diploma and PhD work supervisor. Recently (2020) supervisor of 4 PhD works and 4 Diploma works

2015-2017, 2011-2013 **First and second maternity leave** (2+2 years)

09/2001-06/2002 **TU Chemnitz, Faculty of Mechanical Engineering, Germany** – researcher:

- Application of ESPI (electronic speckle pattern interferometry) method for strain measurement of small samples

09/2000 - 07/2001 **Institut fűr Umformtechnik (IFU-FGU), Universität Stuttgart, Germany**– Assistant researcher

- Research work on forming of tubes by high inner pressure

Collaborations on research projects in last 5 years:

2015-2020 Key researcher, solving two partial aims in project LO1502, Development of Regional technological Institute. (MŠMT).

2017	Co-investigator of Analysis of qualitative parameters of metal cut surfaces on used catting technology (OP PIK, CZ.01.1.02/0.0/0.0/16_045/0009779)
2017-2019	Mentor of project TJ01000161: Systematic applied research of material properties of martensitic steel W-Nr. 1.2709 produced by 3D printing using DMLS technology with the application of research results in practice (Zéta, TA ČR).
2019-2021	Mentor of project TJ02000135: Use of microstructure analysis for development of a ceramic based coating produced by cascade spray coating technology (Zéta TA ČR).
2019-2021	Mentor of project TJ02000182: Increase wear resistance of tool steels by combination of semi-solid processing, hot forming and cryogenic (Zéta, TA ČR).
2019-2022	Key researcher, solving two aims in CZ.02.1.01/0.0/0.0/18_069/0010040: Research of additive technologies for future application in engineering practice (MŠMT)
2017-2020	Key researcher, in project TH02010303 (Epsilon, TA ČR).
2017-2020	Key researcher in project FV20235 (TRIO, PMO).

Important results:

- KUČEROVÁ, L., ZETKOVÁ I., JENÍČEK, Š., BURDOVÁ, K. Hybrid parts produced by deposition of 18Ni300 maraging steel via selective laser melting on forged and heat treated advanced high strength steel, Additive manfuacturing, 2020, vol. 32, 101108. (IF=7.173)
- KUČEROVÁ, L., ZETKOVÁ, I. JANDOVÁ, A., BYSTRIANSKY, M. Microstructural characterisation and in-situ straining of additive-manufactured X3NiCoMoTi 18-9-5 maraging steel. Materials Science and Engineering: A, 2019, vol. 750, p. 80-90. ISSN: 0921-5093. (IF=4.081)
- KUČEROVÁ, L. The Effect of Two-Step Heat Treatment Parameters on Microstructure and Mechanical Properties of 42SiMn Steel. Metals, 2017, roč. 7, č. 12, s. 1-14. ISSN: 2075-4701. (IF=1.984)
- JIRKOVÁ, H., MAŠEK, B., WAGNER, M. F., LANGMAJEROVÁ, D., KUČEROVÁ, L., TREML, R., KIENER, D. Influence of Metastable Retained Austenite on Macro and Micromechanical Properties of Steel Processed by the Q-P Process. Journal of Alloys and Compounds, 2014, Vol. 615, No. 1, p. 163-168. ISSN: 0925-8388. (IF=3.133)
- MAŠEK, B., JIRKOVÁ, H., KUČEROVÁ, L., RONEŠOVÁ, A., JENÍČEK, Š., Method of Production of Steel Sheet Pressed Parts with Locally Modified Properties, patent US8778101B2, United States Patent und Trademark Office, Alexandria, Virginia, USA, 14.7.2014.

Publications activities:

- 67 publication on Scopus (349 in total)
- 42 publication on WOS (215 in total)
- co-author of 1 CZ patent
- co-author of 1 US paten
- 1 utility design
- 1 functional samples
- H-index 13 (Scopus), 10 (WOS)
- orcid.org/0000-0001-7154-7829
- ResearcherID: D-3434-2012
- Since 2017 Reviews for Materials and Design, Metals, Materials, Materials Science & Engineering A and others (publons.com/a/1388842/)
- Guest editor at Materials (2019-2020), Issue: Material Analysis of Additively Manufactured Metals
- Guest editor at Metals (2020), Issue: Recent Development in AHSS

Awards and other important results:

- First place in national competition of Ph.D works 2004, Award of Representative of Pilsen County - 2004
- Marie-Currie fellowship for Summer School on Knowledge based Materials, 2005
- Member of Professional counsel for for Ph.D study program Material engineering, Faculty of Mechanical Eng., UWB in Pilsen
- Member of Professional counsel for Ph.D study program Transport means and infrastructure, University of Pardubice
- Member of evaluation panel P107, GACR
- Member of evaluation pane of "OPUS" National Science Centre, Poland (NCN)
- Invited lectures: Advanced Materials Congress 2019 (Stockholm, Sweden), 3rd Int. Conference on Design & Production Engineering 2018 (Valencia, Spain)