Dr.-Ing. Hana Jirková, Ph.D.

Name:	Hana	Maiden name:	Staňková
Surname:	Jirková		
Birthday:	10. 8. 1980	Nationality:	Czech
Phone:	+420 776 134549	Skype:	Hanka_skype
Residence:	Kotíkovská 1628/13, Pilsen Czech Republic	e-mail:	hstankov@rti.zcu.cz

Education:

2005 – 2008	**PhD. Study – Materials Science,** Chemnitz University of Technology, Faculty of Mechanical Engineering, Chair of Materials and Impact Engineering, Chemnitz, Germany
2003 – 2008	**PhD. Study – Materials Science,** The University of West Bohemia in Pilsen, Faculty of Mechanical Engineering, Czech Republic
1998 – 2003	**University of West Bohemia in Pilsen,** Faculty of Mechanical Engineering, Czech Republic, Field of study: Materials Science and Metallurgy

Work experiences:

04/2006 - present

University of West Bohemia in Pilsen
07/2017 – present: Regional Technological Institute: researcher
04/2006 – 06/2017: Research Centre of Forming Technology: research administration manager

- coordination of research projects
- research and design of progressive types of AHS steels
- development and optimisation of innovative heat and thermomechanical treatments
- semi-solid processing and unconventional metal forming
- material-technological modelling of complex processes
- heat treatment of 3D printed metal materials
- hot stamping
- supervision of diploma and bachelor theses

09/2014-10/2017

- maternity leave

09/2002-06/2003

TU Chemnitz, Faculty of Mechanical Engineering – scientific assistant:

- metallography
- incremental metal forming
- thermomechanical and heat treatment of high strength steels

03/2004 - 08/2004

Comtes FHT, Pilsen – work on diploma work

- metallography, thermomechanical and heat treatment

Stay abroad:

2002 **Nordmetall GmbH, Chemnitz, Germany** – Program Leonardo da Vinci

03/2004 - 07/2014 **Chemnitz University of Technology,** Faculty of Mechanical Engineering, Chair of Materials and Impact Engineering, Germany:

- Study and Research Assistantship Program (03/2004-08/2004)
- Sokrates Erasmus Program (09/2004-08/2005)
- Georgius-Agricola Scholarship (09/2005-2/2005)
- Edgar-Heinemann Scholarship (01/2006-12/2006)

Collaborations on selected research projects in last 5 years:

Member of the research team:

2015 – 2020 Development of the Regional Technological Institute (L01502)

2015 – 2019 Development of energy-efficient press hardening processes based on innovative sheet and tool steel alloys and thermo-mechanical process routes (RFSR-CT-2015-00019)

2017 – 2019 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 (TJ01000161)

2019 – 2022 Research of Additive Technologies for Future Use in Engineering Practice (CZ.02.1.01/0.0/0.0/18_069/0010040)

Investigator or co-investigator:

2015 – 2017 Semi-solid Processing and New Structures without Carbide Net (SGS-2015-028)

2017 – 2018 TRIPIAL TRansformation Induced Plasticity Isothermal Annealing Less (subproject TG02010011-06)

2017 – 2019 Improvement of Properties and Complex Characterization of New Generation Fe-Al-O Based Oxide Precipitation Hardened Steels (GA ČR 17-01641S)

2019 – 2021 Determination of the Principles and Processes Taking Place During the Stabilization Annealing of Austenitic Stainless Steels Used in Nuclear Power (TJ02000274)

2019 – 2021 Improvement of Wear Resistance of Tool Steels by a Combination of Semi-solid Treatment with Subsequent Hot Forming and Deep Cryogenic Treatment (TJ02000182)

5 important results:

- JIRKOVÁ, H., RUBEŠOVÁ, K., KONOPÍK, P., OPATOVÁ, K. Effect of the Parameters of Semi-Solid Processing on the Elimination of Sharp-Edged Primary Chromium Carbides from Tool Steel. METALS, 2018, Vol. 8, No. 9, 1-15. ISSN: 2075-4701 (IF 2.117)
- JIRKOVÁ, H., MAŠEK, B. Method of Manufacturing Hot Deep Drawn Steel Parts of Sheet Metal. US 10,391,538 B2. Alexandria, Virginia, USA, 2019.
- JIRKOVÁ, H., JENÍČEK, Š., KUČEROVÁ, L., KURKA, P. High-strength Steel Components Produced by Hot Metal Gas Forming. Materials Science and Technology, 2019, Vol. 11, p. 1-9. ISSN: 0267-0836 (IF 1.835)
- 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 4.650)
- JIRKOVÁ, H. Vliv termomechanického zpracování s inkrementálními deformacemi na vlastnosti TRIP ocelí (The Influence of Thermomechanical Treatment of TRIP Steel on its Final Microstructure). 1. Edition. Praha: Grada Publishing, 2012, 158 s. ISBN: 978-80-247-4292-2

Publications activities:

- 101 publication on WOS (265 in total)
- 1 book
- co-author of 14 CZ patents
- co-author of 7 US patens
- 9 verified technologies
- 3 utility design
- 5 functional samples
- H-index 10
- ResearcherID: A-5581-2012

Awards and other important results:

- Sachsen Award for Forming Technology (Umbach Preis) - 2008 Germany
- Edgar-Heinemann Award - 2009 Germany
- Festo Award for Young Researchers – 2009 Austria
- Steel Innovation Award: finalist (from 644 projects) – **certificate of merit** for “exemplary high innovative potential with diverse usability of steel materials“– 2009 Germany
- member of the team that won the award: MSV Gold Medal 2014, category "Best Innovative Exhibit Created in Contractual Cooperation of Companies with a Research Organization", 2014, Brno
- honourable mention from the Forging Association (Svaz Kováren) of the Czech Republic, 28. 4. 2015