Name and surname	**Prof. Ing. Ivan Křupka, Ph.D.** http://www.fme.vutbr.cz/prdetail.html?pid=2228		
Main beneficiary	Brno University of Technology https://www.vutbr.cz		
Workplace	Institute of Machine and Industrial Design, Faculty of Mechanical Engineering, Brno University of Technology		
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Nationality	Czech	**Date of birth**	20/05/1967

WORK EXPERIENCE

2014–present	**Vice-dean for Scientific and research activities, and PhD study programme** (Faculty of Mechanical Engineering, Brno University of Technology) ▪ Ensuring organization of PhD study programme ▪ Evaluation of VaV (R&D – Research and Development) and preparation of strategies for further development ▪ Member of the Scientific Board of Faculty of Mechanical Engineering
2009–present	**Professor** (Faculty of Mechanical Engineering, Brno University of Technology) ▪ Teaching in the following courses: Tribology, Elastohydrodynamics (Design and Process Engineering PhD study programme) ▪ Guarantor of the following courses: Tribology and Steel Constructions ▪ Expert in tribological machine operation problems ▪ Conducting research on lubrication, friction and wear of machines and their components
2003–2008	**Associate professor** (Faculty of Mechanical Engineering, Brno University of Technology) ▪ Teaching of the following courses: Machine Design Fundamentals, Design and CAD, Micro and nanotechnology ▪ Guarantor of the following courses: Tribology, Machine Design Fundamentals, and Design and CAD ▪ Expert in tribological machine operation problems ▪ Conducting research on lubrication, friction and wear of machines and their components (e.g.. Study of the influence of surface irregularities on lubricant film formation, Effect of surface roughness on lubricating films behaviour, Effect of surface texturing on the reduction of friction and wear of machine parts)
1995–2002	**Senior Lecturer** (Faculty of Mechanical Engineering, Brno University of Technology) ▪ Teaching in the following courses: Machine Design Fundamentals, Machine Design, Design and CAD ▪ Accomplishment of various research projects (e.g. Experimental verification of theoretical predictions of minimal film thickness within rolling/sliding point contacts, Experimental study of transient processes in lubricated contacts by colorimetric interferometry)

EDUCATION

2009	**prof. (Professor)** ▪ Faculty of Mechanical Engineering Brno University of Technology
2002	**doc. (Associate Professor)** ▪ Faculty of Mechanical Engineering Brno University of Technology

1997	**Ph.D.** ▪ Faculty of Mechanical Engineering Brno University of Technology
1990	**Ing. (M.Sc.)** ▪ Faculty of Mechanical Engineering Brno University of Technology

R&D	Professor Křupka is a world-renowned expert on lubricated contacts in both industrial applications (rolling bearings, gears, journal bearings etc.) and biotribology research (lubrication of joint replacements). He has designed several test rigs for the experimental simulation of lubricated contact behaviour. His worldwide reputation as an expert on lubricated contacts can be proved by the talks that has given at various international conferences (e.g Leeds-Lyon Symposium on Tribology) or awards he has gained for publishing the best papers in tribology journals (e.g. Captain Alfred E. Hunt Memorial Award 2017 STLE). Professor Křupka has also carried our research abroad at the leading tribology workplaces, such as Kyushu Institute of Technology (Kyushu, Japan), Institut National des Sciences Appliquées (Lyon, France) or Tsinghua University (Beijing, China). He has published more than 120 papers, having an outstanding H-index. Profesor Křupka has been involved in many research projects. Results of his research are used in production of rolling bearings and in automotive industry by several leading companies (including K.K. Irisu, INA Schaeffler, Timken) in Japan, Germany and USA.
R&D grants awarded	▪ "International Tribology Research Team Development", 2011–2014, OPVK, EE2.3.20.0126 ▪ "Rotary actuator for space applications", 2017–2019, TA CR Epsilon, TH02010205 ▪ "Effect of thermal properties of contacting bodies on the lubricant within Hertzian non-smooth surfaces", Czech Science Foundation, 2017-2019
Publications	▪ KŘUPKA, I.; HARTL. M.: The effect of surface texturing on thin EHD lubrication films, TRIBOLOGY INTERNATIONAL, 2007, Vol. 40, No. 7, pp. 1100-1110. ISSN 0301679x. Number of citations: 65. (IF = 0,928) ▪ KŘUPKA, I.; BAIR, S.; KUMAR, P.; KHONSARI, M. M.; HARTL, M.: An Experimental Validation of the Recently Discovered Scale Effect in Generalized Newtonian EHL, TRIBOLOGY LETTERS, 2009, Vol. 33, No. 2, pp. 127-135. ISSN 1023-8883. Number of citations: 34. (IF = 1,461) ▪ VRBKA, M.; ŠAMÁNEK, O.; ŠPERKA, P.; NÁVRAT, T.; KŘUPKA, I.; HARTL, M.: Effect of surface texturing on rolling contact fatigue within mixed lubricated non-conformal rolling/sliding contacts, TRIBOLOGY INTERNATIONAL, 2010, Vol. 43, No. 8, pp. 1457-1465. ISSN 0301679x. Number of citations: 36. (IF = 1,313) ▪ ALI, F.; KŘUPKA, I.; HARTL, M.: Mechanism for Controlling Oil Replenishment in Starved Elliptical EHL Contacts, TRIBOLOGY LETTERS, 2015, Vol. 60, No. 37, pp. 1-8. ISSN: 1023-8883. Number of citations: 0. (IF = 1,469) ▪ KANETA, M.; CUI, J. L.; YANG, P. R.; KŘUPKA, I.; HARTL, M.: Influence of thermal conductivity of contact bodies on perturbed film caused by a ridge and groove in point EHL contacts, TRIBOLOGY INTERNATIONAL, 2017, Vol. 100, No. 1, pp. 84-98. ISSN: 0301-679X. Number of citations: 1. (IF = 1,964)

SUPPLEMENTARY INFORMATION

Researcher ID	D-8147-2012
H-index	19