Curriculum Vitae

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Name: Miroslav Španiel
Date of birth: 19.9.1964
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Education:

1989-1994 CTU in Prague, FME, specialization: Mechanics of rigid and deformable bodies and environment (Doctoral studies CSc. - equivalent of Ph.D.)
1984-1989 CTU in Prague, FME, specialization: Applied mechanics (Engineering studies)

Professional experience:

2020 - Czech Technical University in Prague, FME. Associate professor, head of Department of Mechanics, Biomechanics and Mechatronics.
2016 - Czech Technical University in Prague, FME. Associate professor, head of division of elasticity and strength of materials of Department of Mechanics, Biomechanics and Mechatronics (Lectures, exercises, conducting the final works; research activities - management and implementation of grant projects, Ph.D. students supervising, collaboration with industry;. administrative and management activities).
2007 – 2016 Czech Technical University in Prague, FME. Associate professor (Lectures, exercises, conducting the final works; research activities - management and implementation of grant projects, Ph.D. students supervising, collaboration with industry).
1994 - 2007 Czech Technical University in Prague, FME. Assistant professor (Lectures, exercises, conducting the final works; research activities - management and implementation of grant projects, collaboration with industry).
1991 -1994 Czech Technical University in Prague, FME. Researcher (Exercises; postgraduate studies-strength, durability and reliability of the transit gas pipeline).

Professional interests:
Phenomenological modelling of material response, degradation and failure. It includes namely contact fatigue, low-cycle thermomechanical fatigue, and ductile fracture.

Projects and results:

Grant project GA101/09/1709. Phenomenological criteria of fatigue life under fretting conditions. (Provider: GAČR, 1.1.2009 - 31.12.2011), applicant.

- Nesládek, M.; Španiel, M.: An Abaqus plugin for fatigue predictions. Advances in Engineering Software. 2017, 103 1-11. ISSN 0965-9978.
- Nesládek, M.; Španiel, M.; Kuželka, J.; Jurenka, J.; Doubrava, K.: A fretting damage correction factor applicable to the McDiarmid criterion of plain high-cycle fatigue. Fatigue & Fracture of Engineering Materials & Structures. 2017, 40(1), 27-44. ISSN 1460-2695.
- Nesládek, M. - Španiel, M. - Jurenka, J. - Růžička, J. - Kuželka, J.: Fretting fatigue - Experimental and numerical approaches. International Journal of Fatigue. 2012, vol. 44, p. 61-73. ISSN 0142-1123.

Grant project FR-TI2/279. Ductile damage parameters identification for nuclear power stations. (Provider: MPO, 1.1.2010 - 31.12.2012), co-applicant.

- Džugan, Jan; Španiel, M.; Kuželka, J.; Růžička, J.; Prantl, A.; Konopík, P.: Identification of ductile damage parameters for pressure vessel steel. Nuclear Engineering and Design. 2018, 328 372-380. ISSN 0029-5493.
- Džugan, Jan - Španiel, M. - Kuželka, J. - Růžička, J. - Prantl, A. - et al.: Identification of ductile damage parameters for pressure vessel steel. Nuclear Engineering and Design. 2016, ISSN 0029-5493.(article in press).
- Španiel, M. - Prantl, A. - Džugan, J. - Růžička, J. - Moravec, M. - et al.: Calibration of fracture locus in scope of uncoupled elastic–plastic-ductile fracture material models. Advances in Engineering Software. 2014, vol. 76, p. 95-108. ISSN 0965-9978.

Grant project FR-TI4/317. Development of the hi-tech composite sandwiches for ballistic protection. (Provider: MPO, 1.4.2012 - 31.6.2016), co-applicant.

- Sháněl, V. - Španiel, M.: Ballistic Impact Experiments and Numerical Modelling of Parts of Sandwich Armor. Applied Mechanics and Materials. 2015, vol. 751, p. 211-216. ISSN 1662-7482.

Grant project TE01020020. Josef Bozek Competence Centre for Automotive Industry. (Provider: TAČR, 1.3. 2012-31.12. 2017), member of research team responsible for work package.

- Španiel, M. - Novotný, C. - Dvořák, M.: Thermal-mechanical low-cycle fatigue testing machine (Coffin's apparatus). [Functional model]. 2013.
- Španiel, M. - Bartošák, M.: Scripts for evaluation of low-cycle thermo-mechanical fatigue. [Software]. 2015.

Grant project FR-TI4/317 Development of the hi-tech composite sandwiches for ballistic protection. (Provider: MPO, 1.4.2012 - 31.6.2016).

- Sháněl, V. - Španiel, M.: Ballistic impact experiments and modelling of sandwich armor for numerical simulations. In Procedia Engineering. Vilnius: Elsevier, 2014, p. 230-237. ISSN 1877-7058.

Grant project GA101/06/1427. Pitting. Propagation of fatigue cracks under periodic contact loading. (Provider: GAČR, 01.01.2006 - 31.12.2008)

- Jurenka, J. - Španiel, M.: Advanced FE model for simulation of pitting crack growth. Advances in Engineering Software. 2014, vol. 72, p. 218-225. ISSN 0965-9978.

Grant project SGS10/247/OHK2/3T/12 Research of technical and biological composite materials. (Provider: SGS, 01.04.2010 - 31.12.2012).

- Prejzek, O. - Španiel, M. - Mareš, T.: Microstructural residual stress in particle-filled dental composite. Computer Methods in Biomechanics and Biomedical Engineering. 2015, ISSN 1025-5842.

Membership in professional committees and counseling bodies

1. Branch Board member of Mechanics of rigid and deformable bodies and environment branch at FME, CTU in Prague.
2. Branch Board member of Transport Means and Infrastructure branch at Jan Perner Transport Faculty, University of Pardubice.
3. Board member of Technology Agency of Czech Republic programme Theta.
4. Officers board member of Czech Society for Mechanics

Membership and positions in organizational committees of conferences

1. National conference „Výpočty konstrukcí metodou konečných prvků“, since 2002
2. 55th International conference of machine design departments

Since 2014 deputy chairman of the academic senate of CTU in Prague, FME, since 2017 chairman of the academic senate of CTU in Prague.

In Prague, Oct 30th 2020
Miroslav Španiel