europass Curriculum vitae

PERSONAL INFORMATION

András Horváth, PhD.

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Gender Male | Date of birth 14/09/1968 | Nationality Hungarian

Marital status Married, 5 children

PROFESSIONAL EXPERIENCES

Sept. 1992 – Teacher, assistant professor from 2002

Széchenyi István University ;Hungary, Győr, Egyetem tér 1., H-9026

Teaching subjects: different courses on elementary physics (in Hungarian and English), Physical Optics, History of Physics, Popular Science, Digital Image processing.

Sep. 2002 – Aug. 2013 Head of Department

Széchenyi István University ; Hungary, Győr, Egyetem tér 1., H-9026

Manage Department of Physics, later Dept. of Physics and Chemistry.

Jan. 2005 – Dec. 2005 Head of Institution

Széchenyi István University ; Hungary, Győr, Egyetem tér 1., H-9026

Organise the work of the departments of the Institute of Natural Sciences.

Sept. 2006 – Aug. 2009 Vice Dean for Science and International Connection

Széchenyi István University ; Hungary, Győr, Egyetem tér 1., H-9026

Support scientific activity of the Faculty of Engineering Sciences. Preparing regulations related to research activity and Doctoral School. Administrative tasks related to international connections.

Sept. 2009 – Dec. 2014. Vice Dean for Education Affairs

Széchenyi István University ; Hungary, Győr, Egyetem tér 1., H-9026

Organisation task related to the educational activity of the Faculty of Engineering Sciences. Revision and update regulations. Coordinate the initiation and modification of course curricula. Quality management of the educational activity.

Jan. 2018 – May 2019 Coordinator of Rector in Quality Management

Széchenyi István University ; Hungary, Győr, Egyetem tér 1., H-9026

Perform statistical analysis of teaching activity, communication with faculties, and departments.

Jun. 2019 – Vice Rector for Quality Management

Széchenyi István University ; Hungary, Győr, Egyetem tér 1., H-9026

Perform statistical analysis of teaching activity, communication with faculties, and departments. Organise quality management system of Széchenyi István University.

EDUCATION AND TRAINING

2015 **Habilitation**

Széchenyi István University; Doctoral School of Multidisciplinary Engineering Sciences

1999 **Candidate of Physical Sciences (PhD equivalent qualification)**

Hungarian Academy of Sciences
Eötvös Loránd University, Dept. of Astronomy

1986–1994 **MSc degree on Physics, Astronomy and Physics Teacher**

Eötvös Loránd University, Faculty of Natural Sciences
Experimetal Physics, Theoretical Physics (Mechanics, Electrodynamics, Quantum Mechanics), Statistical Physics, Electronics, Atomic Physics, Nuclear Physics; Astrophysics, Celestial Mechanics; Calculus, Probability Theory, Numerical Analysis; Psychology, Pedagogy, Teaching of Physics

PERSONAL SKILLS

Mother tongue: Hungarian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	C1
Russian	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills
- Excellent communication with students.
- Experienced presenter of popular science for public audience.

Organizational/managerial skils
- 17 years of experience in middle-level tasks of higher education.

Computer skills
- Office applications (Word, Excel, Power Point).
- Desktop publishing (LaTeX, Inkscape, GIMP).
- Programming skills (Python, C, C++, Pascal, Basic, assembly).
- Administration of Linux systems.
- Digital image processing. (OpenCV).

Driving license: A, B

RESEARCH FIELDS

Digitail image processing in medical diagnostics. (2011–)
Processing colonoscopy images of polyps, image enhancement, classification of polyps based on image processing.

Simulation of image formation in human retina. (2010–)
Human retina is a source of several limitations in human visual perception. A software is developed in our team is capable of simulating direction-dependent acuity, photopic, scotopic and mesopic vision, basic photochemical processes in sensor cells. Application fields: ergonomics, simulation of special eye diseases, traffic safety applications.

Colorimetry. (2013–)
Photometry and colorimetry based on digital camera images. Reconstruction of the spectrum of light sources and reflective surfaces.

Computational Fluid Dynamics. (1999–2007)

Development of 3D fluid dynamics software and application to industrial problems. (Diesel engine intake port, high-voltage current breakers.) Effective methods for non-ideal gas dynamics problems.

Simulation of interstellar matter. (1990–2000)

Development of computational fluid dynamics software for interstellar matter simulation. Study the effect of thermodynamics of H_2 molecules to the dynamics of molecular clouds. Comparison of simulations and observations.

Publication activity

MTMT (Hungarian Scientific Bibliography) : https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10001936

- 21 scientific journal articles, 9 conference in journal or conference paper, 1 book chapter, 4 higher education books, 21 other scientific works.
- Hirsch-index: 4.
- Independent citations: 54.

Google Scholar: https://scholar.google.hu/citations?user=5YsHUE8AAAAJ

Research Gate: https://www.researchgate.net/profile/Andras_Horvath5