

Curriculum vitae

Personal information



Name **Berberović Edin**

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Date, place of birth 14/9/1974, Zenica, Bosna i Hercegovina

Employment

Date (from – to) 12/7/2013 onward

Employer **University of Zenica, Polytechnic faculty**
Fakultetska 3, 72000 Zenica, Bosnia and Herzegovina,

Position **Associate professor, Vice dean and ECTS coordinator for Polytechnic faculty**

Main responsibilities

- Giving lectures as assistant professor in Basic Hydromechanics, Pumps, fans and compressors, Computer programming for engineering, Object-oriented programming
- Preparing new study programs and curricula, new examination and student testing procedures in study programs
- Innovating existing study programs and scientific development
- Monitoring the teaching process and examinations
- Informing the students about all relevant details of the ECTS system
- Communication with national and international institutions
- Recognition of notes for students coming from other faculties to the Polytechnic faculty
- Preparing and maintenance of the faculty's information package
- Integration of guest students
- Maintenance of the faculty web site

Date (from – to) 1/5/2003 – 12/7/2013

Employer **University of Zenica, Faculty for mechanical engineering**
Fakultetska 3, 72000 Zenica, Bosnia and Herzegovina,

Position **Assistant professor (former senior assistant and assistant)**

Main responsibilities

- Giving lectures in Process engineering, Object-oriented programming
- Giving exercises in Fluid mechanics, Heat transfer, Thermodynamics, Process engineering
- Laboratory exercises at the Chair for energy and process engineering
- Technical secretary at the Chair for energy and process engineering

Academic titles

Date	10/1/2018
Title	Associate professor for Hydromechanics, Chair for hydromechanics and geomechanics, University of Zenica
Date	26/3/2014
Title	Assistant professor in Energy and process engineering, Chair for energy and process engineering, University of Zenica
Date	9/1/2013
Title	Assistant professor in Computational programming, Chair for mathematics and ICT, University of Zenica
Date	28/2/2007
Title	Senior assistant in Energy and process engineering, Chair for Energy and process engineering, University of Zenica
Date	17/11/2005
Title	Assistant in Process engineering, Chair for Energy and process engineering, University of Zenica
Date	13/3/2003
Title	Assistant in Energy technology, Chair for Energy and process engineering, University of Zenica

Work experience

Date (from – to)	March 2003 – April 2003.
Employer	UNIS Fagas d.o.o. Sarajevo Rajlovačka bb, 71000 Sarajevo, Bosnia and Herzegovina
Position	Engineer for gas apparatus
Main responsibilities	- Construction of pressure regulators
Date (from – to)	October 2002 – February 2003
Employer	Narodno grijanje d.o.o. Sarajevo Igmanska bb, 71000 Sarajevo, Bosnia and Herzegovina
Position	Engineer for solar panels
Main responsibilities	- Production of solar panels

Education

Date (from – to)	2007 – 2010
Qualification awarded	PhD Doctor of technical science (Dr.-Ing.)
Field	PhD thesis in Mechanical engineering Thesis title Investigation of Free-surface Flow Associated with Drop Impact: Numerical Simulations and Theoretical Modeling
Institution	Technical University of Darmstadt, Germany, Faculty for mechanical engineering
Date (from-to)	2004 – 2006
Qualification awarded	MSc Master of technical science
Field	Master study in Mechanical engineering (Process engineering and energy) Thesis title Investigations of Hydraulic Balance and Leak Flow Rates in Screw Pumps
Institution	University of Sarajevo, Faculty for mechanical engineering
Datum (od-do)	1996 – 2002
Qualification awarded	Dipl.-Ing. Bachelor in mechanical engineering
Field	Study in Mechanical engineering Thesis title Experimental and numerical investigations of isotropic homogeneous two-phase turbulent flow
Institution	University of Sarajevo, Faculty for mechanical engineering

Seminars, courses

- Summer school 8th International Summer School Renewable energy and energy efficiency in South-East Europe, within EU-project ENER SUPPLY, Fojnica, 2012
- Workshop within the project SEAP – Sustainable Energy Action Plan, ZEDA Zenica, 2012
- Workshop Single and Two-Phase Flow Simulations with OpenFOAM: Modelling and Numerical issues, Center of Smart Interfaces - CSI, Technical University of Darmstadt, Germany, 2009
- AVL List GmbH, Graz, Austria, Training for the computational CFD software FIRE – Advanced Simulation Technologies, 2007

Languages

Personal evaluation

European level (CEFR)

English

German

Understanding

Listening Reading

C2 Proficiency C2 Proficiency

C1 Advanced C1 Advanced

Oral skills

Communication Expression

C2 Proficiency C2 Proficiency

C1 Advanced C1 Advanced

Written skills

C2 Proficiency

C1 Advanced

ICT skills and competences

Computer software (expert): OpenFOAM, Salome, Mathcad, LaTeX, MS Office
Computer software (advanced): ANSYS Fluent, AVL Fire, Solidworks, Adobe Dreamweaver, Wordpress
Programming (expert): C++ programming language
Operating system (expert): Linux, MS Windows

Additional information

Fields of interest

- Numerical simulation of physical transport phenomena using finite volume method
- Computational fluid dynamics and heat transfer (CFD)
- Energy efficiency and renewable energies
- Qualification standards, improvement in higher education

Publications

- 1 book and 1 script
- 23 papers in journals and conference proceedings
- 9 papers in indexed international scientific journals
- 3 international projects
- 5 national projects
- several reviews of manuscripts in international scientific journals

Memberships

- Reviewer in International Journal of Heat and Fluid Flow

Awards and recognitions

- Included in the book of biographies Who's Who in Science and Engineering, Marquis Who's Who 10th Ed., 2008/2009, SAD
- Included in the book of biographies: 2000 Outstanding Scientists, International Biographical Centre, 2008, Great Britain

Publications

BOOKS

1. Berberović E.: Free-surface flow induced by drop impact, modeling and simulation, LAP LAMBERT Academic Publishing, ISBN 978-3-330-32435-0, 2017.

JOURNAL PAPERS

1. Berberović E., Schremb M., Tuković Ž., Jakirlić S., Tropea C.: Computational modeling of freezing of supercooled water using phase-field front propagation with immersed points, *International Journal of Multiphase flow*, 99 : 329-346, 2018.
2. Schremb M., Borchert S., Berberović E., Jakirlić S., Roisman I.V., Tropea C.: Computational modelling of flow and conjugate heat transfer of a drop impacting onto a cold wall, *International Journal of Heat and Mass Transfer*, 109: 971-980, 2017.
3. Berberović E., Šikalo Š.: Computational Modeling and Simulation of Non-isothermal Free-Surface Flow of a Liquid Jet Impinging on a Heated Surface, *Procedia Engineering* 100 : 115–124, 2015.
4. Šikalo Š., Berberović E.: Analysis of Droplet Deposition in a Vertical Air-Water Dispersed Flow, *Procedia Engineering* 100 : 105–114, 2015.
5. Berberović E., Roisman I.V., Jakirlić S., Tropea C.: Inertia dominated flow and heat transfer in liquid drop spreading on a hot substrate, *International Journal of Heat and Fluid Flow*, 32 (4) : 785–795, 2011.
6. van Hinsberg N.P., Budakli M., Göhler S., Berberović E., Roisman I.V., Gambaryan-Roisman T., Tropea C., Stephan P.: Dynamics of the cavity and the surface film for impingements of single drops on liquid films of various thicknesses, *Journal of Colloid and Interface Science*, 350 (1) : 336–343, 2010.
7. Berberović E., van Hinsberg N.P., Jakirlić S., Roisman I.V., Tropea C.: Drop impact onto a liquid layer of finite thickness: dynamics of the cavity evolution, *Physical Review E*, 79 (3) : 036306, 2009.
8. Roisman I.V., Berberović E., Tropea C.: Inertia dominated drop collisions I: On the universal flow in the lamella, *Physics of Fluids*, 21 (5) : 052103, 2009.
9. Berberović E., Šikalo Š.: Evaluation of influence of leak flow rates on screw pump performance, *Journal of Mechanical Engineering*, 10 (3/4) : 111–121, Zenica, 2006.
10. Neimarlija N., Berberović E., Bijedić M.: Numerical analysis of the cooling tower performance, *Transactions of FAMENA*, 29 (2) : 45–54, 2005.
11. Berberović E., Neimarlija N.: Numerical analysis of performance of cooling towers, *International Journal of Engineering Modeling*, 17 (3/4) : 115–119, 2004.

CONFERENCE/PROCEEDINGS PAPERS

1. Grujić B., Ademović N., Žujo V., Tiro D., Eljšan S., Halilčević S., Perušić M., Tadić G., Šišić I., Berberović E.: The elements of the qualifications standard for an engineering study program at the bachelor level, *Proceedings of the 9th Research/Expert Conference with International Participations QUALITY 2015*, Neum, Bosnia and Herzegovina, June 2015.
2. Berberović E.: Numerical simulations of flow due to drop impact on a porous substrate using a permeable wall model, *Proceedings of the 19th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology*, Barcelona, Spain, July 2015.
3. Mekić H., Zaimović-Uzunović N., Šikalo Š., Berberović E.: Mass transfer coefficient in a turbulent vertical annular two-phase flow, *Proceedings of the 19th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology*, Barcelona, Spain, July 2015.
4. Lemeš S., Berberović E., Karač A.: Learning outcomes of mathematics and ICT in mechanical engineering curricula, *Proceedings of the International Professional Conference ME4CataLogue*, Slavonski Brod, Croatia, December 2014.
5. Berberović E.: Computational modeling of free-surface flow pertinent to droplet impact on a porous substrate, *Proceedings of the 18th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology*, Budapest, Hungary, September 2014.
6. Šikalo Š., Berberović E.: Hydrodynamics of a droplet impacting on a flat inclined surface, *Proceedings International Conference on Innovative Technologies, IN-TECH 2014*, Leiria, Portugal, September 2014.
7. Tabak E., Burgić Dž., Berberović E.: Geogebra: Dynamic Mathematical Software for Teaching and Learning, *Proceedings of the 5th International Scientific and Expert Conference Cultural Identity in the Digital Era*, Zenica, Bosnia and Herzegovina, September 2014.
8. Berberović E., Roisman I.V., Jakirlić S., Tropea C.: Inertia dominated flow and heat transfer in liquid drop spreading on a hot substrate, *Proceedings of the 6th International Conference on CFD*, St. Petersburg, Russia, July 2010.
9. Roisman I.V., Berberović E., Jakirlić S., Tropea C.: Dynamics of two-phase flows induced by drop collisions, *Proceedings of the 7th International Conference on Multiphase Flow*, Tampa-Florida, SAD, May/June 2010.
10. van Hinsberg N.P., Berberović E., Roisman I.V., Jakirlić S., Tropea C.: Complementary experimental and computational study of a drop impacting a shallow pool, *Proceedings of the 22nd European Conference on Liquid Atomization and Spray Systems*, Como Lake, Italy, September 2008.
11. Bijedić M., Neimarlija N., Berberović E.: Compressibility factor of methane from the speed of sound measurements, *Proceedings of the 10th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology*, Barcelona, Spain, September 2006.
12. Berberović E., Neimarlija N.: Analysis of performance of cooling towers in power plant Kakanj using Merkel's method, *Proceedings of the 8th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology*, Neum, Bosnia and Herzegovina, September 2004.

INTERNATIONAL PROJECTS

1. CEEPUS CIII-RS-0000-00-1216 Central European Exchange Program for University Studies network Building Knowledge and Experience Exchange in CFD, 2015 -
2. Collaborative Research Center Transregio 75 (SFB-TRR 75): Droplet Dynamics Under Extreme Ambient Conditions, Technical University of Darmstadt, 2016 – 2017.
3. Strategic development of Higher Education and Qualification Standards in Bosnia and Herzegovina, Joint EU/CoE project, member of the team for engineering, 2013 – 2015.

NATIONAL PROJECTS

1. Group of authors: SEAP – Sustainable Energy Action Plan Zenica, ZEDA d.o.o. Zenica development agency, 2011. (part of the project related to renewable energies)
2. Group of authors: Energy audit of the primary school Ćamil Sijarić Nemila, ZEDA d.o.o. Zenica development agency, 2011.
3. Arnaut M., Selimović S., Berberović E.: Training and certification of operators of facilities in energy engineering, Institute for engineering d.o.o., Zenica, 2007.
4. Group of authors: Recognition and revision of project technical documentation of electro steel plant in the company Mittal Steel d.o.o. Zenica, Institute for engineering d.o.o., Zenica, 2007. (part of the project related to energy systems – heat exchangers, pipelines, hydraulic systems and components)
5. Neimarlija N., Berberović E., Selimović S.: Analysis of the request of the company Mittal Steel d.o.o. Zenica for the redistribution of the difference between the purchased and burned coal in the heating season 2005/2006., Institute for engineering d.o.o., Zenica, 2006.

THESES/DISSERTATION

1. Berberović E.: Investigation of Free-surface Flow Associated with Drop Impact: Numerical Simulations and Theoretical Modeling, PhD thesis, Technical University of Darmstadt, Mechanical engineering, Germany, 2010.
2. Berberović E.: Investigations of Hydraulic Balance and Leak Flow Rates in Screw Pumps, MSc thesis, University of Sarajevo, Mechanical engineering, 2006.
3. Berberović E.: Experimental and numerical investigations of isotropic homogeneous two-phase turbulent flow, Diploma thesis, University of Sarajevo, Mechanical engineering, 2002.