PERSONAL INFORMATION

Vahid Helać

Trešnje 31, Ilidža, 71210, Bosnia and Herzegovina

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https://www.linkedin.com/in/vahid-helac-74b0a0103/

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Sex Male | Date of birth 27/09/1992 | Nationality Bosnian

JOB POSITION Senior teaching assistant with University of Sarajevo, Faculty of Electrical Engineering

WORK EXPERIENCE

January 2021 – present

Senior teaching assistant

University of Sarajevo, Faculty of Electrical Engineering

- Research and teaching in the field of renewable energy sources, engineering economics, power systems analysis, electrical substations.

April 2017 – January 2021

Teaching assistant

University of Sarajevo, Faculty of Electrical Engineering

- Research and teaching in the field of renewable energy sources, engineering economics, power systems analysis, electrical substations.

January 2018 – September 2021

Teaching assistant

University of Sarajevo, Faculty of Mechanical Engineering

- Course: Fundamentals of Electrotechnics

September 2016 – April 2017

Industry Expert

University of Sarajevo, Faculty of Electrical Engineering

- Research and teaching in the field of renewable energy sources, engineering economics, power systems, electrical substations.

EDUCATIONAL BACKGROUND

September 2014 – July 2016

Master of Electrical Engineering, Department of Electric Power Engineering

EQF level 7

Department of Electric Power Engineering, University of Sarajevo, Faculty of Electrical Engineering

Thesis title: Dynamic analysis of regime shifts of hybrid solar-wind power plants

September 2011 – July 2014

Bachelor of Electrical Engineering, Department of Electric Power Engineering

EQF level 6

Department of Electric Power Engineering, University of Sarajevo, Faculty of Electrical Engineering

Thesis title: Starting of three phase squirrel-cage and wound type induction motors

March 2016

Advanced Microsoft Office Excel Macros and Functions Course

IEEE Power and Energy Society Student Branch – University of Sarajevo

October 2014 – January 2015

Technical English Language Course

IEEE Industry Application Society Student Branch – University of Sarajevo

PERSONAL SKILLS

Mother tongue(s): Bosnian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	B2
German	B2	B1	B1	A2	A2

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

Communication skills

- Good communication skills gained through time serving as Chair of IEEE Power and Energy Student Branch University of Sarajevo and through experience as teaching assistant

Organisational / managerial skills

- Leadership (Coordination of multi-person teams through organisation of volunteer student projects)

Computer skills

- Good knowledge of programming languages: C, C++
- Proficient knowledge of: MATLAB, EMTP-RV, ATP-EMTP, NEPLAN, AutoCAD, RetScreen
- Good knowledge of CorelDRAW, LaTeX

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Proficient user	Independent user	Independent user	Independent user

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

Driving licence: **B** category

REFERENCES

BOOK PUBLICATIONS

1. S. Hanjalic, S. Smaka, **V.Helac**, Electrical energy generation 1, Faculty of Electrical Engineering Sarajevo, University of Sarajevo, Sarajevo 2019. ISBN: 978-9958-629-76-1
2. A. Odžak, A. Salihbegovic, M. Hamza, M. Brkic, M. Zukic, **V.Helac**, et al., Collection of Tasks for Preparatory Teaching in Mathematics, Faculty of Electrical Engineering Sarajevo, University of Sarajevo, Sarajevo 2018. ISBN: 978-9958-629-67-9

SCIENCE PAPERS/PUBLICATIONS

1. A. Džanan, S. Grebović, S. Smaka and **V. Helać**, "Analysis of Power Distribution Line Outage Based on Measurements and Simulations," 2022 21st International Symposium INFOTEH-JAHORINA (INFOTEH), 2022, pp. 1-6, doi: 10.1109/INFOTEH53737.2022.9751337.
2. A. Kokor, S. Smaka, S. Grebović and **V. Helać**, "Effects of Neutral Point Grounding Methods on Single-Phase Short Circuit Fault Characteristics," 2022 21st International Symposium INFOTEH-JAHORINA (INFOTEH), 2022, pp. 1-6, doi: 10.1109/INFOTEH53737.2022.9751319.

3. A. Čerkez, S. Smaka, S. Hanjalić, **V. Helać** and M. Hanjalić, "Power quality improvement of small hydropower plant located in the industrial area," 2021 Selected Issues of Electrical Engineering and Electronics (WZEE), 2021, pp. 1-6, doi: 10.1109/WZEE54157.2021.9576911.

4. M. Vranjkovina, **V. Helac** and S. Grebovic, "Lightning Protection Model of Photovoltaic Power Plants," *2021 20th International Symposium INFOTEH-JAHORINA (INFOTEH)*, 2021, pp. 1-6, doi: 10.1109/INFOTEH51037.2021.9400706.

5. **V. Helac** and S. Hanjalic, Wind farm response on short circuits and longitudinal asymmetries, 2020 19th International Symposium INFOTEH-JAHORINA (INFOTEH), East Sarajevo, Bosnia and Herzegovina, 2020, pp. 1-6, DOI: 10.1109/INFOTEH48170.2020.9066318.

6. **V. Helac,** S. Hanjalic, S. Curevac-Helac, Analysis of losses and power quality disturbances of grid connected PV system with different load profiles, 7th International Youth Conference on Energy 2019, Bled, Slovenia, July 2019. DOI: 10.1109/IYCE45807.2019.8991571

7. V. Becirovic, **V. Helac**, B. Arslanagic, H. Samic, Effects on LEDs during Accelerated Ageing Test, 18th International Symposium INFOTEH-JAHORINA (INFOTEH), East-Sarajevo, Bosnia-Herzegovina, March 2019, DOI: 10.1109/INFOTEH.2019.8717756

8. **V. Helac**, H. Capelj, V. Becirovic, S. Hanjalic, I. Pavic, Transmission Line Modeling in Three-Phase System and Frequency Domain Based on Kron Matrix Reduction, 18th International Symposium INFOTEH-JAHORINA (INFOTEH), East-Sarajevo, Bosnia-Herzegovina, March 2019, DOI: 10.1109/INFOTEH.2019.8717770

9. V. Becirovic, **V. Helac**, S. Hanjalic, S. Smaka, H. Samic, Power Quality Problems in Autonomous Photovoltaic System with Energy Storage, International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), Amalfi, Italy, June 2018. DOI: 10.1109/SPEEDAM.2018.8445271

10. V. Becirovic, S. Smaka, R. Jercic, S. Hanjalic, **V. Helac**, A New Simple Algorithm for Power System Harmonics' Phasors Estimation, International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), Amalfi, Italy, June 2018. DOI: 10.1109/SPEEDAM.2018.8445372

11. **V.Helać**, H. Šamić, S. Hanjalić, B. Nikolić, Influence of organic materials on solar cells efficiency, 17th International Symposium INFOTEH-JAHORINA (INFOTEH), East Sarajevo, Bosnia-Herzegovina, March 2018, DOI: 10.1109/INFOTEH.2018.8345525

12. **V. Helać**, S. Hanjalić, Modeling and the impact on power quality of hybrid solar – wind power plants, 6th International Youth Conference on Energy (IYCE), Budapest, Hungary, June 2017. DOI: 10.1109/IYCE.2017.8003729

13. S. Hanjalić, **V. Helać**, Hybrid Solar –Wind Power Plants –Simulation of a Daily Cycle and the Criteria for the Connection to the Power Grid, 4th International Symposium on Environment Friendly Energies and Applications, Belgrade, Serbia, September 2016. DOI**:**10.1109/EFEA.2016.7748781

PROJECTS

July 2019.

1. Project name: “Study of the Impact of the Small Hydro Power Plant Ivančica on the Distribution Network “
   Funding: Excellent d.o.o. Sarajevo, Bosnia and Herzegovina
2. Project name: “Study of the protection settings of the small hydro power plant Ivančica”
   Funding: Excellent d.o.o. Sarajevo, Bosnia and Herzegovina

December 2018.

1. Project name: “Effects and phenomena on LED lighting devices during accelerated ageing tests”
   Funding: Ministry of Education, Science and Youth of Sarajevo Canton, Sarajevo, Bosnia and Herzegovina

ADDITIONAL INFORMATION

Research Profiles

- ORCID: https://orcid.org/0000-0001-5895-1894
- ResearchGate: https://www.researchgate.net/profile/Vahid-Helac
- Google scholar: https://scholar.google.com/citations?user=xx2uzd8AAAAJ&hl=hr&oi=ao

Memberships

- IEEE – from 2014 – to present
- IEEE Smart Grid – from 2016 – to present
- IEEE Young Professionals – from 2014 – to 2016
- IEEE Power and Energy Society – from 2014 – to 2016
- IEEE Industry Application Society – from 2014 – to 2016

Honours and awards

- "Silver badge" award – University of Sarajevo 2016 – for one of the best students in master studies
- "Silver badge" award – University of Sarajevo 2014 – for one of the best students in bachelor studies
- 3rd place in International Competition of Electrical Engineering students "Elektrijada 2016" in "Electric machines", Rimini, Italy, May 2016.