

Dr. Andrija Petrović



Personal data

Address:

University of Belgrade
Faculty of Mechanical Engineering,
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Nationality:

Serbian

Date of birth:

August 23rd, 1991

Research or academic title

Teaching and Research Assistant

Research field/area

Mechanical engineering /
Machine learning, Artificial
intelligence, Reinforcement
learning, Operational research,
Probabilistic graphical modelling.

Languages

Serbian, English, Russian

Skills

- Python (PyTorch, TensorFlow, numpy, pandas, flask, etc.),
- MATLAB,
- Visual Basic,
- Eviews,
- SQL,
- LaTeX, MS Office.

Education

- | | |
|--------------------|---|
| 2015 - 2020 | Doctoral academic studies (Ph.D., Dr.-Eng.)
University of Belgrade - Faculty of Mechanical Engineering,
Department of Process and Environmental Engineering
Dissertation title: Process performances of supersonic gas ejector with variable area convergent-divergent nozzle |
| 2015 - 2019 | Doctoral academic studies (Ph.D., Dr.-Eng.)
University of Belgrade - Faculty of Organizational Sciences,
Program: Information systems and quantitative management
Dissertation title: Development of an integrated model for congestion prediction and determination of optimal number of active channels in module |
| 2015 | Master of Science (M.Sc.) in Financial Markets and Banking
University Singidunum - Faculty of Business Economy,
Program: Financial and banking
Thesis title: of Dynamics of emission permission price values and rentability of trigenerative plant |
| 2015 | Master of Science (M.Sc.) in Mechanical Engineering
University of Belgrade - Faculty of Mechanical Engineering,
Department of Process and Environmental Engineering
Thesis title: Conceptual design and economic evaluation of trigenerative plant based on organic Rankine cycle |
| 2014 | Bachelor of Science (B.Sc.) in Financial Markets and Banking
University Singidunum - Faculty of Business Economy,
Program: Financial and banking
Thesis title: Regulation and trading with green house effect gasses |

Number of citations (excluded self-citations)

81

Hirsch index

5

Awards and prizes

- Commendations for the Faculty of Mechanical Engineering Day for excellent grades in the first and second year of Master degree studies.
- Commendations for the Faculty of Mechanical Engineering Day for excellent grades in the first, second and third year of Bachelor degree studies.
- Best student Award on Bachelor studies.
- Best student Award on Master studies.
- Best student Award in generation 2010.
- The recipient of a scholarship from the Ministry of Education, Science and Technological Development during Master degree studies 2013/14.
- The recipient of a scholarship from the DOSITEJA during Master degree studies.
- The recipient of a scholarship from the DOSITEJA during Bachelor degree studies.
- The recipient of a scholarship from the TENT during Bachelor degree studies 2011/12.
- The recipient of a scholarship from city of Belgrade during Bachelor degree studies 2011/12.

2013 Bachelor of Science (B.Sc.) in Mechanical Engineering

University of Belgrade - Faculty of Mechanical Engineering,
Thesis title: Analysis of cost using biomass for production of electricity

Employment

Jul. 2018 - Dec. 2020 **Teaching and Research Assistant**
University of Belgrade - Faculty of Mechanical Engineering,
Department of Industrial Engineering
Laboratory for Terotechnology

Publications (selected)

1. **A. Petrovic, M. Jovanovic, S. Genic, U. Bugaric, and B. Delibasic, Evaluating performances of 1-D models to predict variable area supersonic gas ejector performances, Energy, 163 (2018), pp. 270-289, DOI:j.energy.2018.08.115**
2. **A. Petrovic, B. Delibasic, J. Filipovic, A. Petrovic, and M. Lomovic, Thermoeconomic and environmental optimization of geothermal water desalination plant with ejector refrigeration system, Energy Conversion and Management, 178 (2018), pp. 65-77, DOI:j.enconman.2018.10.035**
3. **M. Lomovic, A. Petrovic, M. Ristanovic, and A. Petrovic, Modeling, simulation and PI gain-scheduling controller optimization of water desalination plant with liquid jet vacuum ejector, Desalination and water treatment, 136 (2018), pp. 92-110, DOI: 10.5004/dwt.2018.23233**
4. **A. Petrovic, Z. Jeremic, Regulation and trading with green house effect gases and advantages of serbia's entry in the emission market, International Journal for Quality Research, 9 (4) (2015), pp. 705-718**
5. **A. Petrovic, U. Bugaric, B. Delibasic and I. Ivetic, Prediction of skiing time by structured regression algorithm, SIE 2018, pp. 180**

Certificates

- Certificate for solving conflicts in business environments (MERIT Plan d.o.o.).

Products, services (datasets, software)

1. GitHub account:
<https://github.com/andrijaster>

Projects and activities (selected)

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|-----------------------|--|
| 2019 - Present | <i>Aggregating computational algorithms and human decision-making preferences in multi-agent settings,</i>
Grant: ONR N62909-19-1-2008,
Project funded by Office of Naval Research |
| 2018 - 2019 | Babić, B., Miljković, Z., Petrović, A., et al.
<i>An Innovative, Ecologically Based Approach to the Implementation of Intelligent Manufacturing Systems for the Production of Sheet Metal Parts,</i>
Grant no. TR-35004,
Project funded by Ministry of Education, Science and Technological Development of the Government of the Republic of Serbia |
| 2018 - 2020 | <i>Development of machine learning algorithms,</i>
Project funded by Saga d.o.o. |
| 2018 - 2019 | <i>Integrity of pressure equipment under influence of temperature and fatigue of the material,</i>
Grant no. TR-35011,
Project funded by Ministry of Education, Science and Technological Development of the Government of the Republic of Serbia |