

Olivera R. Ećim-Đurić
ORCID(0000-0003-1387-7752)

Teaching/Scientific/Research Rank: Full professor/ Philosophical Doctor (PhD)

Institution: University of Belgrade Faculty of Agriculture

Position: Head of the Department for Agricultural Engineering, Head of the Laboratory for Thermotechnical and Current-Technical Measurements

Speciality: Thermodynamics, Heat and Mass Transfer, Energy Efficiency, Environmental protection, Artificial intelligence in agriculture, Machine Learning modeling

Address: Gandijeva 124/7, 11070 Belgrade, Republic of Serbia

Telephone: +381 11 220 2056 (home), +381 11 441 3446 (office), +381 64 1180161 (cell phone)

E-mail: nera@agrif.bg.ac.rs, sofijanera@gmail.com

Education/professional training:

1990 – 1995 Mechanical Engineer (Mech. Eng.); University of Belgrade Faculty of Mechanical Engineering

1995 – 2003 Master of Sciences (MSc); University of Belgrade Faculty of Mechanical Engineering

2003 – 2008 Philosophical Doctor (PhD); University of Belgrade Faculty of Mechanical Engineering

Research interests:

Thermodynamics, Heat and mass transfer, Energy efficiency, Renewable energy sources, Artificial intelligence in agriculture, Machine Learning modeling.

Academic Work Experience

2010 - Assistant Professor, Faculty of Agriculture, Belgrade

2000 – 2010 Research Assistant, Faculty of Agriculture, Belgrade

1998 – 2000 Research Associate, Military Technical Institute, Belgrade

1996 - 1998 Research Assistant, Faculty of Agriculture, Belgrade

Fellowships:

- 7th International Solar Energy Workshop “in Lanzhou, China, 1998.
- International Cooperation and Sustainable Development of Agricultural, Environmental and Rural Systems, Cervia, Italy, 2003
- ANSYS-FLUENT Training Workshop, and training of CFD software packages use, Thessaloniki, Greece, 2004.

Other activities:

- Independent expert for the European Executive Agency for Climate, Infrastructure and the Environment (CINEA).
- Reviewer of international magazine from SCI list Energy & Buildings, Energy, Energy Conversation and Management, Biomass and Bioenergy.
- Lecturer at the Universite Catholique in Lille, France, at 2019, ERASMUS+ Program.
- Lecture at the course "Creating professional certification courses for industry in the fruit sector and vegetables ", organized by USAID's Competitive Economy Project, in cooperation with the Faculty of Agriculture, University of Belgrade and UC Davis Postharvest Technology Center, USA and AgroNET - Center for Education and Research, 2019-2021.
- Member of the editorial board of the journal Agricultural Engineering
- Board member of the International Building Performance Simulation Association - Danube Affiliate
- Member of Union of Mechanical and Electrical Engineers and Technicians of Serbia

Relevant publications - five selected published papers:

1. Ećim-Đurić, O., Dragičević, A., Miodragović, R., Milanović, M., Rajković, A., Mileusnić, Z. & Tadić, V. (2025). Experimental Evaluation and Modeling of Strawberry Slices Drying Kinetics Based on Machine Learning. *Tehnički vjesnik*, 32 (2), 425-432. <https://doi.org/10.17559/TV-20240723001875>
2. Ećim Đurić, O., Miodragović, R., Rajković, A., Milanović, M., Mileusnić, Z., & Dragičević, A. (2024). Primena mašinskog učenja u poljoprivredi. *Poljoprivredna tehnika*, 49(4), 108-125. <https://doi.org/10.5937/PoljTeh2404108E>
3. Ećim-Đurić, O., Milanović, M., Dragičević, A., Rajković, A., Mileusnić, Z., Miodragović, R. (2024). Mathematical and Deep Learning Modelling of the Raspberries Drying Kinetics. In: Mitrovic, N., Mladenovic, G., Mitrovic, A. (eds) *New Trends in Engineering Research 2024. CNNTech 2024. Lecture Notes in Networks and Systems*, vol 1216. Springer, Cham. https://doi.org/10.1007/978-3-031-78635-8_25
4. Ećim-Đurić, O.; Milanović, M.; Dimitrijević-Petrović, A.; Mileusnić, Z.; Dragičević, A.; Miodragović, R. Prediction of Greenhouse Microclimatic Parameters Using Building Transient Simulation and Artificial Neural Networks. *Agronomy* **2024**, *14*, 1147. <https://doi.org/10.3390/agronomy14061147>
5. Vucic Tanja, Milincic Danijel, Zilic Sladjana, Ignjatovic-Sredovic Ivana, Saric Zlatan, Ećim-Djuric Olivera, Kostic Aleksandar, Barac Miroljub (2020): The effect of in vitro digestion on antioxidant properties of water-soluble and insoluble protein fractions of traditional Serbian white-brined cheeses., *Mljekarstvo*, Vol 70., pp. 253-265

6. Todorovic M., Ecim-Djuric O., Nikolic S., Ristic S., Polic-Radovanovic S. (2015): Historic building's holistic and sustainable deep energy refurbishment via BPS, energy efficiency and renewable energy – A case study, *Energy&Buildings*, Vol 95, pp 130-137
7. Kavgać Miroslava, Mumović D., Summerfield A., Stefanović Zarko, Ecim-Djuric Olivera(2013): Uncertainty and modeling energy consumption: Sensitivity analysis for a city-scale domestic energy model, *Energy & Buildings*, Vol. 60 br. , pp. 1-11,
8. Predrag Milanović, Olivera Ećim, Miloš Jelić, Vojislav Tomić, Mihailo Milanović (2012): Dynamic modeling of a heating system using geothermal energy and storage tank, *Thermal Science*, Vol. 16, No. 3, pp. 947-953
9. I.Mijailovic, V. Radojicic, O. Ecim-Djuric, G. Stefanovic, G. Kulic, (2014): Energy potential of tobacco stalks in briquettes and pellets production, *Journal of Environmental Protection and Ecology* 15, No 3, 1034-1041
10. Olivera Ecim-Djuric, Goran Topisirovic(2010): Energy efficiency optimization of combined ventilation systems in livestock buildings, *Energy & Buildings*, Vol 42, Issue 8, pp. 1165-1171,