

Associated Professor, Marko Kostić, Ph.D.

Field of research: Agricultural Engineering

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Date of birth May 3, 1983

Academic qualifications

- 2009-2015 PhD - Thesis Title: Development of a sensor system for soil mechanical resistance measurement with geo- georeferencing, University of Novi Sad, Faculty of Agriculture
- 2007-2009 MSc – Thesis Title: Development and reliability testing of opto-electronic sowing control system, University of Novi Sad, Faculty of Agriculture
- 2002-2007 BSc – Thesis Title: Modern concepts of agriculture hydraulics, University of Novi Sad, Faculty of Agriculture

Marko Kostić is currently employed as an Assistant Professor at the University of Novi Sad, Faculty of Agriculture, Department of agricultural engineering. The narrow field of interest is precision agriculture regarding proximal soil and plant sensors. He possesses two national patents including a sensing device for on-the-go measurement of soil mechanical resistance with data georeferencing. Also, he is interested in the application of information and digital technology as decision support in farming, the effects of different soil management systems, the technology of variable mineral fertilizer application, the technology of variable precision seeding, and optoelectronic systems for seeding quality control. During his research career, he was involved in three national and international projects.

Journal papers

1. Rajković M, Malidža G, Stepanović S, **Kostić M**, Petrović K, Urošević M, Vrbničanin S. 2020. Influence of Burner Position on Temperature Distribution in Soybean Flaming, *Agronomy*, 10(3), 391.
2. Božović D., Popović V., Rajičić V., **Kostić M.**, Filipović V., Kolarić Lj., Ugrenović V., Spalević V. (2020). Stability of the expression of the maize productivity parameters by AMMI models and GGE-biplot analysis. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*. 48 (3): online-first, DOI: 10.15835/nbha48312058
3. **Kostić M**, Rakić D, Radomirović D, Savin L, Dedović N, Crnojević V, Ljubičić N. 2018. Corn seeding process fault cause analysis based on a theoretical and experimental approach. *Computers and Electronics in Agriculture*, 151: 207-218.
4. **Kostić M.**, Rakić D., Savin L., Dedović N., Simikić M. 2016. Application of an original soil tillage resistance sensor in spatial prediction of selected soil properties. *Computers and Electronics in Agriculture*, 127(2016): 615-624.
5. **Kostić M**, Dedović N, Savin L, Snežana Matić Kekić. 2015. The influence of tractor configuration on machine guidance error under parallel tracking pattern-theoretical analysis. *Cont. Agr. Eng*, 41(3): 155-164.

6. **Kostić M**, Rakić D, Ličen H, Malinović N. 2014. Design and construction of three point hitch device for measuring draft of tillage implement. Data acquisition and post processing analysis. *J. Food Agric. Environ.*, 12(2): 1300-1307.
7. Ljubičić N, Petrović S, **Kostić M**, Dimitrijević M, Hristov N, Kondić Šipka A, Jevtić R. 2017. Diallel analysis of some important grain yield traits in bread wheat crosses. *Turk J Field Crops*, 2017, 22(1), 1-7.
8. **Kostić M**, Malinović N. 2014. Universal mechanical frame for measurement of soil resistance during a tillage with conventional machines. Patent No. 1384. *Zavod za intelektualnu svojinu (Intellectual Property Gazette)*, No. 5/2014.
9. Rajković M, Malidža G, **Kostić M**, Petrović K, Tančić Živanov S, Stanojević S, Pavlović D, Vrbničanin S. 2019. Flaming inter-row cultivator, Patent, *Glasnik intelektualne svojine (Intellectual Property Gazette)* 11/2019.

Conference papers

1. Ljubičić, N., Radović, M., Kostić, M., Blagojević, D., Radulović, M., Popović, V., Ivošević, B., Pandžić, M. (2020): "The influence of application of zinc oxide (ZnO) nanoparticles on growth and yield components of bread wheat (*Triticum aestivum* L.). II. International Conference on Agricultural, Biological and Life Science, 7th to 9th July 2020. Edirne, Turkey, in press. 2020.
2. Popović V., Sikora V., Rajicic V., Ljubicic N., Radovic M., Kostic M., Šarčević-Todosijević Lj. (2020): Millet (*Panicum miliaceum* L.) production trends in Word and Serbia and the importance as bioenergy and food crops. XXIV International Eco-Conference® 2020, 24–26 September 2020, Novi Sad, Serbia, in press. 2020.
3. Aristotelis Christos Tagarakis, **Marko Kostić**, Nataša Ljubičić, Goran Kitić, Miloš Pandžić. 2019. In-field testing of new low-cost multispectral sensor for assessing maize yield potential. EFITA 2019 „Digitizing Agriculture“ Rhodes, p.36-41, Greece, June 27-29.
4. Tagarakis A, Kostić M, Ljubičić N, Kitić G, Pandžić M. 2019. In-field testing of new low-cost multispectral sensor for assessing maize yield potential. EFITA-Digitizing agriculture 27th - 29th of June 2019 Rhodes, Greece.
5. Nataša Ljubičić, Marko O, Ivana Maksimović, Panić M, Marina Putnik Delić, **Marko Kostić**, Milena Daničić, Sanja Brdar, Radivoje Jevtić, Vladimir Crnojević. Spectral reflectance indices as a phenotyping tool for assessing morpho-physiological traits of winter wheat (*Triticum aestivum* L.), Plant Phenotyping Forum: integrating European plant phenotyping community 22th - 24th of November 2017 Tartu, Estonia, Book Of Abstract.
6. Nataša Ljubičić, Radivoje Jevtić, Sanja Brdar, Oskar Marko, Marko Panić, **Marko Kostić**, Milivoje Knežević, Vladan Minić, Predrag Lugonja1 and Vladimir Crnojević. Normalized Difference Vegetation Index (NDVI) as a tool for wheat yield traits estimation. COST WG1 / EPPN2020 workshop 29th - 30th of September 2017 Novi Sad.
7. **Kostić M**, Dedović N, Molnar T. 2017. The tillage resistance sensor response to the different soil conditions. 2nd International and 14th National Congress of Soil Science Society of Serbia: Solutions and Projections for Sustainable Soil Management. Book of abstracts, September 25-28th, Novi Sad-Serbia

Selected projects

Project TR – 20078: “Improvement of energy and ecology efficiency of tractors and mobile systems” (2008-2011). (Participant)

Project TR – 31046: „Improving the quality of tractors and mobile systems in order to increase competitiveness, soil conservation and the environment“ (2011-2014). (Participant)

Project 114-451-2298/2011: “Development and application of a measuring system for determining the soil mechanical resistance according to principle of precision agriculture” (2011-2013). (Participant).

Centre of Excellence for Advanced Technologies in Sustainable Agriculture and Food Security — ANTARES, GA number 739570.

Professional training

PR China, International Course: “Biogas hygiene technologies and facilitates” (45 days)

Izrael, International Course: „Agriculture Engineering Technologies“ Tel Aviv-Volcani, Haifa-Technion Institute (21 days)

Austria, Boku University (7 days)

Academic activities

Teaching at undergraduate and master studies (Precision agriculture, Informatics in AG)

Memberships

- Vojvodinian Society of Agricultural Engineering
- Serbian Society for Soil Research

Software skills: Microsoft Office, Autodesk Autocad, Autodesk Inventor, CorelDraw, ArcGis, Manifold GIS, Catman Easy HBM, Statistica.