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Personal information

Name and Surname	Miloš Milašinović
Title:	MSc. Civil Engineer, Phd
Date of birth:	01.05.1991.
Nationality:	Serbian
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Education

Period	**Degree**	**Institution**
November 2015 – February 2021	Doctor of Philosophy, PhD	Faculty of Civil Engineering, University of Belgrade
October 2014 – September 2015	Master Degree, MSc.	Faculty of Civil Engineering, University of Belgrade
October 2010 – September 2014	Bachelor Degree	Faculty of Civil Engineering, University of Belgrade

Involvment in research

Period	**Project title**	**Funding**	**Involment description**
2016 - 2021	Urban Drainage Systems as Key Infrastructure in Cities and Towns (Leader: Prof dr Dušan Prodanović, Full time professor at Faculty of Civil Engineering, Belgrade)	Ministry of educations, science and technological development	Researcher
2021-2022	DyRes System - Dynamic resilence as a measure for risk assessment of the complex water, infrastructure and ecological systems: Making a context	Science Fund of the Republic of Serbia	Researcher
2024-2025	Improving the Early Warning System on Kolubara catchment using machine learning	Innovation Fund of Republic of Serbia (GovTech program)	Principal Investigator
2024-2025	DIGIDRAIN: City-scale digital twins for urban drainage systems – bringing “smart“ to water infrastructure	Science Fund of the Republic of Serbia (program DIASPORA 2023 – joint research projects)	Principal Investigator

Working Experience

Period	Institution	Job description
October 2015 – February 2016	Public Water Company Srbijavode	Associate engineer
February 2016 – July 2021	University of Belgrade, Faculty of Civil Engineering, Department for Hydraulic and Environmental Engineering	Teaching Assistant in the fields of Fluid Mechanics and Hydraulic and Environmental Engineering. Courses: - Fluid mechanics - Environmental engineering - Hydraulics - Measurement techniques in hydraulic and environmental engineering
July 2021 – present	University of Belgrade, Faculty of Civil Engineering, Department for Hydraulic and Environmental Engineering	Assistant Professor in the fields of Fluid Mechanics and Hydraulic and Environmental Engineering. Courses: - Fluid mechanics - Environmental engineering - Hydraulics - Computational hydraulics - Measurement techniques in hydraulic and environmental engineering
September 2024 – present	Digital Water Engineering Laboratory – DWEL, University of Belgrade, Faculty of Civil Engineering	Head of laboratory

Interests

Digital Water, Digital Twins, Hydroinformatics, Data assimilation, AI for water resources, Urban drainage, Flood forecasting, Water distribution systems, Environmental engineering

Publications

International peer-reviewed journals

1. **M. Milašinović**, D. Ivetić, M. Stojković, and D. Savić (2023) Failure Conditions Assessment of Complex Water Systems Using Fuzzy Logic. Water Resources Management. 37 (), pp.1153-1182. DOI: https://doi.org/10.1007/s11269-022-03420-w [M21]
2. D. Ivetić, **M. Milašinović**, M. Stojković, A. Šotić, N. Charbonnier, and N. Milivojević (2022) Framework for Dynamic Modelling of the Dam and Reservoir System Reduced Functionality in Adverse Operating Conditions. Water. 14 (10) DOI: https://doi.org/10.3390/w14101549 [M22]

3. **M. Milašinović**, D. Prodanović, M. Stanić, B. Zindović, B. Stojanović, and N. Milivojević (2022) Control theory-based data assimilation for open channel hydraulic models: tuning PID controllers using multi-objective optimization. Journal of Hydroinformatics. 24 (4) DOI: https://doi.org/10.2166/hydro.2022.034 [M22]
4. L. Ignjatović, M. Stojković, D. Ivetić, **M. Milašinović**, N. Milivojević (2021) Quantifying Multi-Parameter Dynamic Resilience for Complex Reservoir Systems Using Failure Simulations: Case Study of the Pirot Reservoir System. *Water*. **13** (22) DOI: https://doi.org/10.3390/w13223157 [**M22**]
5. **M. Milašinović**, D. Prodanović, B. Zindović, B. Stojanović, and N.Milivojević (2021) Control theory-based data assimilation for hydraulic models as a decision support tool for hydropower systems: sequential, multi-metric tuning of the controllers. *Journal of Hydroinformatics*. **584** () DOI: https://doi.org/10.2166/hydro.2021.0788 **[M22]**
6. **M. Milašinović**, D. Prodanović, B. Zindović, N. Rosić, and N. Milivojević (2020) Fast data assimilation for open channel hydrodynamic models using control theory approach. *Journal of Hydrology*. **584** () DOI: https://doi.org/h10.1016/j.jhydrol.2020.124661 **[M21a]**
7. **M. Milašinović**, A. Randjelović, N. Jaćimović, D. Prodanović (2019) Coupled Groundwater Hydrodynamic and Pollution Transport Modelling using Cellular Automata approach. *Journal of Hydrology*. **576** () DOI: https://doi.org/10.1016/j.jhydrol.2019.06.062 **[M21a]**
8. **M. Milasinović**, D. Prodanović, and M. Stanić (2018) Pressure drop test as a hydroinformatic tool for preliminary network topology validation. *Water Science and Technology: Water Supply*. () DOI: https://doi.org/10.2166/ws.2018.095 **[M23]**

International conferences

1. V. Ćirović, D. Bogdanović, V. Bartoš-Divac, D. Stefanović, and **M. Milašinović** (2022) Decision support system for Iron Gate hzdropower system operations. In: Contemporary Water Management: Challenges and Research Directions. [M33]
2. F. Bojović, **M. Milašinović**, B. Jovanović, L. Krstić, B. Stojanović, M. Ivanović, D. Prodanović, N. Jaćimović, and N. Milivojević (2022) Physics informed neural networks for 1D flood routing. In: 1st Serbian International Conference on Applied Artificial Intelligence (SICAAI), Kragujevac, Serbia, May 19-20. [M33]
3. **M. Milasinović**, D. Prodanović, B. Stojanović, and N. Milivojević (2021) PI controllers as data assimilation tool for hydrodynamic models: tuning controllers using genetic algorithm. *In: 6th IAHR Europe Congress, Warsaw, Poland*. **[M33]**
4. **M. Milasinović**, D. Prodanović, B. Zindović, N. Rosić, and N. Milivojević (2020) Control theory-based update of water levels in 1D hydrodynamic models. *In: RIVER FLOW 2020*. **[M33]**
5. **M. Milasinovic**, B. Zindovic, N. Rosic, D. Prodanovic (2019) PID controllers as data assimilation tool for 1D hydrodynamic models of different complexity. *In: Conference proceedings - 5th International Conference SimHydro*. **[M33]**
6. **M. Milasinovic**, B. Zindovic, D. Prodanovic, and N. Rosic (2019) PID controllers as Data Assimilation Tool for 1D Hydrodynamic models of Different Complexity. In: Philippe Gourbesville and Guy

Caignaert (eds.) *PID controllers as Data Assimilation Tool for 1D Hydrodynamic models of Different Complexity*. Springer, pp.1009-1022. DOI: https://doi.org/10.1007/978-981-15-5436-0 **[M33]**

7. **M. Milasinovic**, A. Randjelovic, N. Jacimovic, and D. Prodanovic (2018) Cellular Automata Approach for 2D Pollution Transport Modelling in Urban Groundwater. *In: In Proceedings: 11th International Conference on Urban Drainage Modelling, Septembar 2018, Palermo*. **[M33]**
8. **M. Milasinovic**, A. Randjelovic, N. Jacimovic, and D. Prodanovic (2018) New Trends in Urban Drainage Modelling. In: Giorgio Manina (eds.) *Cellular Automata Approach for 2D Pollution Transport Modelling*. Springer, pp.765-771. DOI: https://doi.org/10.1007/978-3-319-99867-1_132 **[M33]**
9. **M. Milašinović**, and N. Jaćimović (2017) ESTIMATION OF RIVERBED CLOGGING LAYER FILTRATION CHARACTERSTICS BASED ON AQUIFER PUMPING TEST RESULTS - ODREĐIVANJE FILTRACIONIH KARAKTERISTIKA KOLMIRAJUĆEG SLOJA UZ REKU NA OSNOVU REZULTATA TESTA PROBNOG CRPLJENJA. *In: Conference proccedings - 5th International conference contemporary achievements in civil engineering*. DOI: 10.14415/konferencijaGFS2017.070 **[M33]**
10. **M. Milašinović**, D. Prodanović, and M. Stanić (2017) Water Distribution Network Topology Validation Using Pressure Drop Test. *In: 9th Eastern European Young Water Professionals Conference - Conference Proceedings*. **[M33]**
11. **M. Milašinović**, D. Ivetić, Ž. Vasilić, and M. Stanić (2016) Primena optimizacionog algoritma mravlje kolonije u projektovanju sistema pod pritiskom. *In: Zbornik radova, 16ta međunarodna konferencija "Vodovodni i kanalizacioni sistemi", Jahorina, Pale, Republika Srpska*. **[M33]**
12. **M. Milašinović**, D. Prodanović, M. Stanić, and Ž. Vasilić (2016) Detekcija konfiguracije vodovodne mreže pomoću testa obaranja pritiska. *In: Zbornik radova, 16-ta međunarodna konferencija "Vodovodni i kanalizacioni sistemi", Jahorina, Pale, Republika Srpska*. **[M33]**
13. D. Ivetić, D. Prodanović, **M. MIlašinović**, and T. Dašić (2015) One Example of C ascaded Reservoirs Hydropowerplant System Modelling for Master Plan Analysis. *In: 7th IWA Eastern European Young Water Professional Conference, Belgrade, Serbia*. **[M33]**

National (Serbian) journals

1. **M. Milašinović**, B. Zindović, N. Rosić, D. Prodanović (2018) Analiza uticaja kompleksnosti 1D modela tečenja na postupak asimilacije podataka zasnovane na primeni PID kontrolera - preliminarni rezultati. *Vodoprivreda*. **50** (294-296), pp.245-254. **[M51]**
2. **M. Milašinović**, and N. Jaćimović (2017) Procena filtracionih karakteristika kolmirajućeg sloja rečnog dna na osnovu rezultata testa probnog crpljenja. *VODOPRIVREDA 0350-0519*. **49** (285-287), pp.161-166. [M51]
3. D. Ivetić, **M. Milašinović**, and D. Prodanović (2015) Analiza upravljanja kaskadnim HES pomoću SIMULINKA. *Vodoprivreda*. (), pp.269-276. **[M51]**

National conferences

1. **M. Milašinović**, A. Ranđelović, N. Jaćimović, and D. Prodanović (2018) Modeliranje transporta zagađujuće materije u poroznoj sredini primenom Cellular Automata principa preliminarni rezultati. *In: 18. Savetovanje SDHI i SDH, Niš, Srbija*. **[M63]**
2. **M. Milašinović**, D. Ivetić, and D. Prodanović (2015) Primer modeliranja hidraulike i upravljanja kaskadnog hidroenergetskog sistema. *In: 17. Savetovanje SDHI i SDH, Vršac, Srbija*. **[M63]**
3. **M. Milašinović**, B. Zindović, N. Rosić, and D. Prodanović (2018) Analiza uticaja kompleksnosti 1D modela tečenja na postupak asimilacije podataka zasnovane na primeni PID regulatora preliminarni rezultati. *In: 18. Savetovanje SDHI i SDH, Niš, Srbija*. **[M64]**

PhD Thesis

1. M. Milašinović (2021) Fast data assimilation methodology for open channel flow models. PhD thesis. University of Belgrade - Faculty of Civil Engineering. [M71]

Awards

Year	Award	Rewarder
2014.	Award for outstanding achievements during Bachelor studies on Department of Hydraulic and Environmental Engineering	Faculty of Civil Engineering, Department for Hydraulic and Environmental Engineering and EHTING Co.
2015.	Award for outstanding achievements during Master studies on Department of Hydraulic and Environmental Engineering	Faculty of Civil Engineering, Department for Hydraulic and Environmental Engineering

Social networks profiles

LinkedIn, ResearchGate, Google Scholar, Scopus, ORCID