

CV MILAN STOJKOVIC

EDUCATION

- 2018 - 2019 Post-Ph.D.
“Propagation of the uncertainty within the hydroclimatic modelling chain”
Department of Civil and Environmental Engineering
University of Western Ontario, Canada
Major: System dynamics modelling, hydrology, climatology
Advisor: Professor Slobodan P. Simonovic, Ph.D.
- 2009 - 2015 Ph.D.
“The long-term changes in the stochastic structure of the hydrologic time series” Faculty of Civil Engineering
University of Belgrade, Serbia
Department of Hydraulic and Environmental Engineering
Major: Hydrology, Applied Statistics
Advisor: Professor Jasna Plavsić, Ph.D.
- 2003 - 2009 Dipl.-Ing. (This degree was obtained for 5 years (10 semesters) with graduate thesis)
Faculty of Civil Engineering and Architecture,
University of Niš, Serbia,
Department for Hydraulic Engineering
Major: Hydraulics
Advisor: Professor Slobodan Milenković, Ph.D.

EMPLOYMENT

- 2025 - present Assistant Professor
Faculty of Civil Engineering, University of Novi Sad
- 2022 - present Senior research associate
Institute for artificial Intelligence research and development of Serbia,
Green AI,
Serbia, Novi Sad (Belgrade office)
- 2019 - 2022 Senior research associate
Water Institute “Jaroslav Černi”, Department of hydrology and surface hydraulic,
Serbia, Belgrade
- 2018 - 2019 Postdoctoral research associate,
University of Western Ontario,
Department of Civil and Environmental Engineering
Canada, London
- 2009 - 2018 Research Associate/Junior research
Water Institute “Jaroslav Černi”, Department of hydrology and surface hydraulic
Serbia, Belgrade

MEMBERSHIP

Member of the Serbian Chamber of Engineers – license 313.

FUNDING

2018-2019	Postdoctoral fellowship at the University of Western Ontario, Canada
Jun 2017	ICTP - International Centre for Theoretical Physics. Hydroclimate Modeling and Analysis Tools. Italy, Trieste. Founded by UNESCO.
2004-2009	Scholarship of the Ministry of Education and Science of Republic of Serbia, for great results during undergraduate and graduate studies.

RESEARCH/INDUSTRIAL PROJECTS

2024 - 2027	ARTIFACT: ARTificial Intelligence for Flood resilient infrAstruCTure Widera call 2024-2027 Role: Principal investigator
2024 - 2025	AI-based system for flow prediction at the sites of the Drinsko-Limske Hydropower Plants. Joint stock company "Elektroprivreda Srbije" Role: Principal investigator
2020 - 2023	DyRes_System: Dynamics resilience as a measure for risk assessment of the complex water, infrastructure and ecological systems: Making a context – Serbin Science Fund. PROMIS Call: Role: Principal investigator
2019 - 2021	Drina River Basin Water Resources and Basin Study and Hydraulic and Hydrological Modelling for the Drina River Basin with Reservoir Operation Role: Lead hydrologist and project coordinator
2019 - 2020	Developing of flood forecasting and warning system at the Kolubara river basin – first phase Public enterprise SRBIJAVODE Role: Lead hydrologist and project coordinator
2018 - 2019	Propagation of the uncertainty within the hydroclimatic modelling chain, Case study of the Lim river basin. The Natural Sciences and Engineering Research Council of Canada. Role: Research associate
2018	Stochastic model for generation of sintetic hydrological time series at the sites of the Komarnica reservoir. The preliminary design of the Komarnica reservoir and hydropower plant. Elektroprivreda Crne Gore A.D. Role: Principal hydrologist

2010 - 2019	Assessment of Climate Change Impact on Water Resources in Serbia, funded by Ministry of Education and Science, Government of Republic of Serbia Role: PhD student/Principal hydrologist
2010 - 2019	System development to support optimal sustainability of the high dams in Serbia, funded by Ministry of Education and Science, Government of Republic of Serbia Role: PhD student/Principal hydrologist
2015 - 2016	Study on Flood Management improvement in the Kolubara river basin Role: Principal hydrologist
2014 - 2017	Support to Water Resources Management in the Drina river basin funded by World Bank Role: Principal hydrologist
2015	Development of the probabilistic model for the hydropower plants in Serbia so as to establish weekly, monthly and annual water management plans funded by Electricity Company EPS, Serbia Role: Principal hydrologist
2014	Assessment of the weekly unregulated flows at the hydro power profiles in Serbia for the period 1926-2012 funded by Electricity Company EPS, Serbia Role: Principal hydrologist
2014	Development of the distributed Hydro-Information system (hydrological and hydro-energetic model) of the Vlasina hydropower plants funded by Electricity Company “Djerdap”, Serbia Role: Hydrologist
2014	Development of the distributed Hydro-Information system (physical-based hydrologic model in the karst area) of the water system “Trebišnjica” (funded by Electricity Company “Trebišnjica”, Bosnia and Herzegovina Role: Hydrologist
2014	Hydrological and meteorological investigation in terms of the hydropower potential at the Ibar River funded by Seci Energia, Italy Role: Hydrologist
2009-2010	Development of the distributed Hydro-Information system of the Drina River basin (physical-based hydrologic model) funded by Government of Republic Serbia, Ministry of Education and Science, Serbia Role: Hydrologist
2009-2010	Development of the distributed Hydro-Information system of the Vrbas River (physical-based hydrologic model) funded by Electricity Company ERS, Bosnia and Herzegovina Role: Hydrologist

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| 2010 | Hydrologic research in terms of the hydropower potential at the rivers: Vrbas, Pliva, Janja and Black River funded by Electricity Company ERS, Bosnia and Herzegovina
Role: Hydrologist |
| 2009 | Hydrological and meteorological research of the Kolubara River Basin funded by Electricity Company EPS
Role: Hydrologist |

COMPLETE LIST OF PUBLICATION

Books:

1. **Stojković M.** (2017): Stochastic modelling of hydrologic time series. Andrejević Endowment. Belgrade. Serbia. 114 pp. ISBN 978-86-525-0292-9

Publications:

A) International journals

1. Ilic, V., Sekulic, M. T., Brboric, M., Radonic, J., Dmitrasinovic, S., & **Stojkovic, M.** (2025). Enhancing the monitoring system for river water quality: harnessing the power of satellite data and machine learning. *Blue-Green Systems*, 7(2), 338-352. **M21**
2. Vinokić, L., Dotlić, M., Prodanović, V., Kolaković, S., Simonovic, S. P., & **Stojković, M.** (2024). Effectiveness of Three Machine Learning Models for Prediction of Daily Streamflow and Uncertainty Assessment. *Water Research X*, 100297. **M21**
3. Prodanovic, V., Bach, P. M., & **Stojkovic, M.** (2024). Urban nature-based solutions planning for biodiversity outcomes: human, ecological, and artificial intelligence perspectives. *Urban Ecosystems*, 1-12. **M21**
4. **Stojković, M.**, Mijić, A., Dobson, B., Marjanović, D., & Majkić-Dursun, B. (2024). Novel Perspectives on Environmental Dynamic Resilience: Adapting Urban Water Systems to a Changing Climate. *Water Resources Management*, 1-18. **M21**
5. Dodig, A., Ricci, E., Kvascev, G., & **Stojkovic, M.** (2024). A novel machine learning-based framework for the water quality parameters prediction using hybrid long short-term memory and locally weighted scatterplot smoothing methods. *Journal of Hydroinformatics*, 26(5), 1059-1079. **M22**
6. Krtolica, I., Todorov, M., Prohaska, S. **Stojković, M** (2024) Annual and low-flow trends in Serbia (southeast Europe). *Journal of Hydrological engineering*, DOI 10.1061/JHYEFF/HEENG-6030 **M22**
7. Kostić, S., & Stojković, M. (2023). Colored noise in river level oscillations as triggering factor for unstable dynamics in a landslide model with displacement delay. *Frontiers in Earth Science*, 11, 1267225. **M22**
8. Kostić, S., **Stojković, M.**, Ilić, V., & Trivan, J. (2023). Deep Neural Network Model for

Determination of Coal Cutting Resistance and Performance of Bucket-Wheel Excavator Based on the Environmental Properties and Excavation Parameters. *Processes*, 11(11), 3067. **M22**

9. Cojbasic, S., Dmitrasinovic, S., Kostic, M., Turk Sekulic, M., Radonic, J., Dodig, A., & **Stojkovic, M.** (2023). Application of machine learning in river water quality management: a review. *Water Science & Technology*, 88(9), 2297-2308. **M22**

10. Kolaković, S., Mandić, V., **Stojković, M.**, Jeftenić, G., Stipić, D., & Kolaković, S. (2023). Estimation of Large River Design Floods Using the Peaks-Over-Threshold (POT) Method. *Sustainability*, 15(6), 5573. **M22**

11. Simic, V., **Stojkovic, M.**, Milivojevic, N., & Bacanin, N. (2023). Assessing water resources systems' dynamic resilience under hazardous events via a genetic fuzzy rule-based system. *Journal of Hydroinformatics*, 25(2), 318-331. **M22**

12. **Stojković, M.**, Marjanović, D., Rakić, D., Ivetić, D., Simić, V., Milivojević, N., & Trajković, S. (2023). Assessment of water resources system resilience under hazardous events using system dynamic approach and artificial neural networks. *Journal of Hydroinformatics*, 25(2), 208-225. **M22**

13. Milašinović, M., Ivetić, D., **Stojković, M.**, & Savić, D. (2023). Failure Conditions Assessment of Complex Water Systems Using Fuzzy Logic. *Water Resources Management*, 37(3), 1153-1182. **M21**

14. Ivetić, D., Milašinović, M., **Stojković, M.**, Šotić, A., Charbonnier, N., & Milivojević, N. (2022). Framework for dynamic modelling of the dam and reservoir system reduced functionality in adverse operating conditions. *Water*, 14(10), 1549. **M22**

15. Rakic, D., **Stojkovic, M.** Ivetic D., Živkovic, M., Milivojevic N (2021) Failure assessment of embankment dam elements: Case study of the Pirot Reservoir System. *Applied science* 12(2), 55 **M22**

16. Ignjatović, L., **Stojkovic, M.**, Ivetic D., Milašinovic, M., Milivojevic N (2021) Quantifying Multi-Parameter Dynamic Resilience for Complex Reservoir Systems Using Failure Simulations: Case Study of the Pirot Reservoir System. *Water* 13(22) **M22**

17. **Stojkovic, M.**, Simonovic P. S. (2020) Understanding the uncertainty of the Lim river basin response affecting by change climate. *Journal of Hydrologic Engineering*. 25(9) **M22**

18. **Stojkovic, M.**, Plavsic J., Prohaska S., Pavlovic D., Despotovic J. (2020) A two-stage time series model for monthly hydrologic projections under climate change in the Lim River basin. *Hydrological Sciences Journal* 65(3): 387-400 **M22**

19. **Stojkovic M.**, Simonovic S.P. (2020). System Dynamics Approach for Assessing the Behaviour of the Lim Reservoir System (Serbia) under Changing Climate Conditions. *Water*. 11: 1620 **M21**

20. **Stojkovic, M.**, Simonovic P. S. (2019) Mixed general extreme value distribution for estimation of future precipitation quantiles using a weighted ensemble - Case study of the Lim river basin (Serbia). *Water Resource Management* 33: 2885–2906 **M21**

21. Kostić, S., **Stojković, M.**, Guranov, I., Vasić, N. (2019) Revealing the background of groundwater

level dynamics: Contributing factors, complex modeling and engineering applications. *Chaos Solitons & Fractals*. 127: 408-421 **M21**

22. Stojković-Zlatanović, S., **Stojković, M.**, Mitković, M. (2018) Current state and perspective of water management policy in terms of climate change: Case study of the Velika Morava River. *International Journal of Climate Change Strategies and Management*. 10(5): 670-688. **M23**

23. **Stojković, M.**, Kostić, S., Prohaska, S., Plavšić, J., Tripković, V. (2017): A new approach for trend assessment of annual flows: a case study of hydropower plants in Serbia. *Water Resource Management* 31, 1089-1103. **M21**

24. **Stojković, M.**, Kostić, S., Plavšić, J., Prohaska, S. (2017): A joint stochastic-deterministic approach for long-term and short-term modelling of monthly flow rates. *Journal of Hydrology*. 544, 555–566. **M21**

25. **Stojković, M.**, Plavšić, J., Prohaska, S. (2017): Short-term predictions of hydrologic time series based on a modified TIPS method. *Journal of Hydrology and Hydromechanics*. 65, 165–174. **M22**

26. **Stojković, M.**, Prohaska, S., Zlatanović, N. (2017): Estimation of flood frequencies from data sets with outliers using mixed distribution functions. *Journal of Applied Statistics*. 44, 2017-2035. **M23**

27. Kostić, S., **Stojković, M.**, Prohaska, S., Vasović, N. (2016): Modeling of river flow rate as a function of rainfall and temperature using response surface methodology based on historical time series. *Journal of Hydroinformatics* 18, 651-665. **M21**

28. Kostić, S., **Stojković, M.**, Prohaska, S. (2016): Hydrological flow rate estimation using artificial neural networks: model development and potential applications. *Applied Mathematics and Computation*. 291, 373–385. **M21**

29. **Stojković M.**, Jacimovic, N. (2016): A Simple Numerical Method for Snowmelt Simulation based on the Equation of Heat Energy. *Water Science and Technology*. 73, 1550-1559. **M23**

30. **Stojković, M.**, Prohaska, S., Plavšić, J. (2015): Stochastic structure of annual discharges of large European rivers. *Journal of Hydrology and Hydromechanics*. 63, 63-70. **M22**

31. **Stojković, M.**, Ilić A., Prohaska, S., Plavšić, J. (2014): Multi-Temporal Analysis of Mean Annual and Seasonal Stream Flow Trends, Including Periodicity and Multiple Non-Linear Regression. *Water Resources Management*. 28, 4319–4335. **M21**

2. Publications in journals without impact factor/ scientific conference

1. Vinokić, L., **Stojković, M.**, & Kolaković, S. (2024). Statistical Method for the Depth-Duration-Frequency Curves Estimation Under Changing Climate: Case Study of the Južna Morava River (Serbia). In Conference on Information Technology and its Applications (pp. 254-266). Springer, Cham.

2. **Stojković, M.**, Prohaska, S., Bartoš Divac, V. 2022 Hidrologija Kosova i Metohije. Naučni skup: Energetski resursi na Kosovu I Metohiji. 17-18. Januar 2022. Srpska akademija nauke i umetnosti SANU

3. **Стојковић М.**, Иветић Д., Милашиновић М., Игњатовић Л., Стојадиновић Л., Миливојевић Н. 2021. Dynamics resilience as a measure for risk assessment of the complex water systems: Project overview. 19. саветовање Српског друштва за хидрауличка истраживања и Српског друштва за хидрологију (СДХИ-СДХ), 18.-19.10.2021., Београд. Издавач: Универзитет у Београду Грађевински факултет (прихваћено за штампу)
4. Стојадиновић Л., Иветић Д., Милашиновић М., Игњатовић Л., **Стојковић М.**, Миливојевић Н. 2021. Динамичка резилијентност као мера за управљање ризиком код сложених водопривредних система: имплементација модела отказа у водопривредни модел. 19. саветовање Српског друштва за хидрауличка истраживања и Српског друштва за хидрологију (СДХИ-СДХ), 18.-19.10.2021., Београд. Издавач: Универзитет у Београду Грађевински факултет (прихваћено за штампу)
5. Миливојевић Н., Миловановић М, Миливојевић В., Стојадиновић Л., **Стојковић М.** 2021. Систем Ране најаве и упозорења (РНУ) „Колубара“ за пилот слив реке Тамнаве. 19. саветовање Српског друштва за хидрауличка истраживања и Српског друштва за хидрологију (СДХИ-СДХ), 18.-19.10.2021., Београд. Издавач: Универзитет у Београду Грађевински факултет (прихваћено за штампу)
6. Lazar, I., **Stojković, M.**, Milivojević, N. 2020. Resilience as a measure for risk assessment of the water systems: review of existing concepts. 2nd YOUNg ResearcherS Conference – YOURS 2020. Belgrade, Serbia
7. Kostić, S., **Stojković, M.**, Vasović, N. (2017): Current state and perspective of water management policy in terms of climate change: Case study of the Velika Morava River. Published in: Water Research and Management. 7, 3-12.
8. **Stojković, M.**, Kostić, S, Plavšić, J, Prohaska S. (2017): A joint stochastic-deterministic model (cross-correlation transfer functions, artificial neural networks, polynomial regression) for monthly flow predictions. 7th International Conference on Information Society and Technology ICIST (Special Tracks-Hydroinformatics) at Kopaonik, Serbia, March 2017, 12-15.
9. Zlatanović, N., **Stojković, M.** (2016): Assessment and Monitoring of Droughts in Southeastern Europe: A Review. Published in: Water Research and Management. 6, 11-18.
10. Prohaska, S., Bartoš-Divac, V., **Stojković, M.** (2016): Određivanje statističke značajnosti intenziteta jakih kiša u Valjevu nakon pojave izuzetnih majskih padavina 2014. godine. Publikovano u: Voda i sanitarna tehnika (en. Statistical significance determination of heavy precipitation intensity in Valjevo City during May 2014. Published in: Water and Sanitary Technology) 46, 11-16.
11. Prohaska, S., **Stojković, M.**, Jelovac, M., Božović, N., Bartoš, Divac V. (2016): Definisane teorijskih hidrograma velikih voda na hidrološki izučanim profilima u slivu reke Kolubare nakon poplave iz maja 2014. godine. 45. konferencija o aktuelnim temama korišćenja i zaštite voda “VODA 2016“. (en. Definition of theoretical flood hydrographa at river gauging sites in the Kolubara River basin during floods in May 2014) at Serbia, Zlatibor, Jun 2016. 75-84
12. Drobnjak, A., Zlatanovic, N., Bozovic, N., **Stojkovic, M.**, Orlic Momcilovic A., Jelovac M.,

Prohaska S. (2016): Regionalization of flood hydrograph parameters in the Kolubara River Basin. European Geosciences Union General Assembly at Austria, Vienna, April 2016, Vienna, Austria, EGU2016-16550

13. **Stojković, M.**, Plavšić, J, Prohaska, S. (2015): Long-term hydrological projection of monthly flows in term of climate change adaptation strategy. IWA 7th Eastern European Young Water Professionals Conference at Serbia, Belgrade, September 2015.

14. **Stojković, M.**, Plavšić, J, Prohaska, S. (2015): Novi metodološki okvir SDTS za dugoročne projekcije mesečnih proticaja u uslovima klimatskih promena. 17. savetovanje Srpskog društva za hidraulička istraživanja (SDHI) i Srpskog društva za hidrologiju (SDH) (en: A novel methodological framework SDTS (Stochastic Decomposition Time Series) for long-term projections of monthly flow.) at Serbia, Vršac, October 2015, 915-922.

15. **Stojković, M.**, Prohaska, S, Plavšić, J, Pavlović, D. (2015). Primena modifikovane TIPS metode za dugoročne projekcije serija srednje godišnjih proticaja, 17. savetovanje Srpskog društva za hidraulička istraživanja (SDHI) i Srpskog društva za hidrologiju (SDH). (en. Application of modified TIPS method for long-term projection of mean annual flows) at Serbia, Vršac, October 2015, 915-922.

16. **Stojković, M.**, Prohaska, S., Plavšić, J. (2014): Internal Stochastic Structure of Annual Discharge Time Series of Serbia's Large Rivers. Published in: Water Research and Management. 4, 3-13.

17. **Stojković, M.**, Plavšić, J, Prohaska, S. (2014): Dugoročne promene godišnjih i sezonskih proticaja: Primer reke Save. Publikovano u: Vodoprivreda (en. Long-term changes in annual and seasonal flows: A case study of the Sava River. Published in: Water Management). 46, 39-48.

18. **Stojković, M.**, Prohaska, S., Plavšić, J. (2014): Stochastic modelling of time series of mean annual discharges in Serbia's part of the Danube River Basin to the end of the 21st century at XXVI Conference of the Danubian Countries on Hydrological Forecasting and Hydrological Bases of Water Management "Danube 2014 – Bridging the sciences-crossing borders" at Germany, Deggendorf, September 2014, 63-66.

19. Milivojević, V., Milivojević, N., **Stojković, M.**, Ćirović, V., Divac D. (2014): Development of distributed hydro- information system for the Drina river basin. 4th International Conference on Information Society and Technology – ICIST at Serbia, Kopaonik, March 2014, 50-55.

20. **Stojković, M.**, Milivojević, N. (2013): Hydrological modeling with special reference to snow cover processes. Published in: Facta Universitatis Series: Architecture and Civil Engineering. 11, 147-168.

21. **Stojković, M.**, Milivojević, N., Milivojević, V., Ćirović, V. (2013): Multi-Objective Automatic Calibration of the Distributed Hydrological Model. International Conference on Applied Internet and Information Technologies ICAIIT at Serbia, Zrenjanin, October 2013, 67-73.

22. **Stojković, M.**, Prohaska, S., Plavšić, J. (2013): Stochastic Modeling of Time Series of Mean Annual Discharge in the 21st Century: Case Study of the River Ibar. International Conference

Climate Change Impacts on Water Resources at Serbia, Belgrade, October 2013, 55-63.

23. **Stojković, M.**, Milivojević, N., Milivojević, V., Ćirović, V. (2012): Using GIS algorithms for hydrologic analysis of the River Drina. 5th International Conference „Science and Higher Education in Function of Sustainable Development“ SED at Serbia, Užice, October 2012, 26-31.

24. **Stojković, M.**, Plavšić, J., Prohaska, S. (2012). Stohastička analiza serija srednje godišnjih proticaja na stanicama na Dunavu, 16. naučno savetovanje Srpskog društva za hidraulička istraživanja (SDHI) i Srpskog društva za hidrologiju (SDH), (en. Stochastic analysis of the annual flow time series at hydrological stations at the Danube River) at Serbia, Donji Milanovac, October 2012, 527-543.

25. **Stojković, M.**, Milivojević, N., Stojanović, Z. (2012): Use of Information Technology in Hydrological Analysis. E- society Journal: Published in: Research and Applications. 3, 105-116.

26. Prohaska, S., **Stojković, M.** (2012): Stochastic Structure of the Forming Process of the River Runoff on Rivers with Longest Time Series in the World. Conference „Contemporary Issues of Adaptive Water Management“, WSDAC (UNESCO Centre) at Serbia, Belgrade, October 2012, 63-64.

27. **Stojković, M.**, Prohaska, S., Koprivica, A. (2012): Analysis of Trends and Cycles in Longest Hydrometeorological Time Series in the World. 5th Conference on Water, Climate and Environment - BALWOIS at Macedonia, Ohrid, May –June 2012, 1-12.