Damjan Ivetić

Date of Birth: 24th March 1988 Belgrade
Mobile: +381642397752 Serbia
E-mail: damjan.ivetic@gmail.com; divetic@grf.bg.ac.rs
Driving Licence: Full, Clear

Profile:

I am a young and innovative PhD candidate from University of Belgrade, Faculty of Civil Engineering. I am also employed on the same faculty as a teaching assistant, conducting practical parts of several courses on BSc and MSc studies. My PhD is focused on the ability to improve the accuracy of the flow measurements in Hydraulic systems, with free surface flow, by using the bed-mounted electromagnetic meters. Apart from the measurements and experimentation, I like hydraulic modelling: from downscale, OpenFOAM based, turbulent flow models up to the more simplified modelling of water supply, urban drainage and other hydraulic systems. In general, I find it exciting to use a blend of theory, models, algorithms, lab and field experiments, to solve problems and arrive at useful conclusions.
Currently I am working on the scientific project funded by Ministry of Science, Education and Technological Development of the Republic of Serbia entitled "Rain water drainage systems as part of the urban and transport infrastructure" as well as on several projects with domestic water and construction companies. I have experience in conducting courses on the subject of Water distribution and Storm water network modelling using EPANET and EPASWMM. I am fluent in English and intermediate in Russian language.

Education:

- **2012 – Present University of Belgrade, Faculty of Civil Engineering, Serbia.**
  Degree: PhD: Civil Engineering, module Hydraulic and Environmental Engineering
  GPA 10/10
- **2011 – 2012 University of Belgrade, Faculty of Civil Engineering, Serbia.**
  Degree: MSc: Civil Engineering, module Hydraulic and Environmental Engineering
  GPA 10/10
- **2007 – 2011 University of Belgrade, Faculty of Civil Engineering, Serbia.**
  Degree: BSc: Civil Engineering, module Hydraulic and Environmental Engineering
  GPA 9.55/10
- **2003 – 2007 XIII Belgrade Gymnasium, Belgrade, Serbia**

Employment History:

University of Belgrade, Faculty of Civil Engineering

Bulevar kralja Aleksandra 73
Belgrade
Serbia

Teaching assistant — *January 2013 - Present*

Courses on BSc studies — *Fluid Mechanics*
Introduction to Environmental Engineering
Basics of Hydraulic Engineering

Courses on MSc studies — *Measurements in Hydraulic Engineering (Hydrometry)*

Main activities and responsibilities:

- Delivering and organizing practical parts of courses, including laboratory work
- Communication with students on daily basis
- Responsible for providing instructions and overseeing each student's experiments during courses

Research areas:

Water distribution systems analysis:	*Development of new algorithms for design and performance optimization of water distribution networks (including water aging and quality).*
Computational Hydraulics:	*FE, FV and FD numerical modelling of groundwater, pressurized and free surface flow (including eddy-viscosity turbulence models).*
Measurements in Hydraulic Engineering:	*EM flow meters and Acoustic Doppler Velocimeters usage and signal processing.*

Most significant projects related to University:

Design of District Metric Areas for city of Novi Sad (pop. around = 200 000)	*As part of the scientific team made of the two Professors and three PhD students, we developed algorithm for the DMA design. Based on these results, by order, we proposed the design to the local water company.*
Definition of the development strategies for the water utilities in the city of Pancevo	*Based on the extensive studies, including quantity and quality measurements and extended period simulations, development strategies for the water supply utilities were defined, by order. Particular focus was placed on the chlorination issues in the existing network.*
Design of the flow measurement systems on large derivational tunnels within HPS Trebinje	*Three flow measuring stations were designed, based on the Velocity – Area approach, within two derivational tunnels (diameters 6.4 and 5.0 m). Mean velocity measurements were made by EM meters, calibrated using a novel procedure, allowing for low uncertainty data (1.5%).*

Computer skills and competences:

General Drafting and Design:	*AutoCAD* *Salome* *Tecplot*
Hydraulic Modelling:	*EPANET(Conducting training courses)* *EPASWMM(Conducting training courses)* *OpenFOAM* *HEC-RAS* *WaterCAD*
Programming Languages:	*C#, C++* *MATLAB* *FORTRAN* *Simulink*
General:	*Microsoft Office*

LibreOffice
Ubuntu, CentOS

Most significant references:

Ivetić, D., Prodanović, D., & Stojadinović, L. (2018). Bed-mounted Electro Magnetic meters: Implications for robust velocity measurement in Urban Drainage systems. *Journal of Hydrology*, *566*, 455-469.

Ivetic, D., Prodanovic, D., & Stojadinovic, L. (2018, September). Electro-Magnetic Velocity Meters: Assessment of the (Missing) Technical Parameters. In *International Conference on Urban Drainage Modelling* (pp. 638-643). Springer, Cham.

Ivetić, D., Vasilić, Ž., Stanić, M., Prodanović, D. (2016) *Speeding up the water distribution network design optimization using the ΔQ method*. Journal of Hydroinformatics 18 (3), 33-48.