

**STEFANIA F. BALICA, PhD**  
**Curriculum Vitae**

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UNESCO-IHE  
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Education and titles:

- 2007 - 2012:** PhD Researcher in Water Science Engineering, UNESCO-IHE, Institute for Water Education, Delft, The Netherlands, working on “Applying the Flood Vulnerability Index as a knowledge base for flood risk assessment” defended on June, 6<sup>th</sup>, 2012
- 2007 – 2008:** Master of HydroProtech, Hydro-technological Projects Management, Ecole Polytechnique Universitaire Nice Sophia-Antipolis, France
- April 2007 – July 2007:** Researcher in Civil Engineering at Faculty of Hydro-technical Engineering, “Politehnica” University of Timisoara, Romania, working on optimising diversion schemes using non-structural measures
- 2005 - 2007:** Master of Science in Hydraulic Engineering and River Basin Development, UNESCO-IHE, Institute for Water Education, Delft, The Netherlands, thesis topic “Development and application of Flood Vulnerability Indices for various spatial scales”
- 2005:** Postgraduate course: Integrated Water Management, Faculty of Hydro technical Engineering, “Politehnica” University of Timisoara, Romania
- 2002 – 2007:** PhD Researcher in Civil Engineering at Faculty of Hydro-technical Engineering, “Politehnica” University of Timisoara, Romania, working on optimising diversion schemes using non-structural measures, defended on July, 6<sup>th</sup>, 2007
- 2002 - 2003:** Master of Science “Hydro-technical systems optimization” in Civil Engineering at Faculty of Hydro-technical Engineering, “Politehnica” University of Timisoara, Romania
- 1997 - 2002:** BSc of Faculty of Hydrotechnical Engineering (9.30/10), “Politehnica” University of Timisoara, Romania (*Final Project* 9.60/10).

Experience Summary:

- 2011 – present** Teaching, UNESCO-IHE, Delft, the Netherlands, short course IWRM as a Tool for Adaptation to Climate Change, Coastal Cities Flood Vulnerability Index
- 2011** Co-supervisor for 2 students scientific work, Herriot-Watt, Scotland
- 2010** Co-supervisor for students scientific work, UNESCO-IHE, Delft
- 2008-2009** Supervisor for 2 students MSc thesis, UNESCO-IHE, Delft
- 2008 – present** Teaching, UNESCO-IHE, Delft, the Netherlands, fieldwork in Dignes les Bain, France
- 2008 – present** Teaching, UNESCO-IHE, Delft, the Netherlands, online course in Water and Climate Change, Dealing with Uncertainty.
- 2003-2005:** Teaching Assistant in Civil Engineering at Faculty of Hydro-technical Engineering, “Politehnica” University of Timisoara, Romania. *Courses:* Eco-hydrology, Integrated Water Management, Preventing Soil Erosion

Technical Skills:

Mapping (GIS), modelling (Sobek, Delft 3D, EPAnet, Mike), Microsoft Office Suite

#### Honors and Awards:

- **Scholarship Lamminga 2010**, IWA Sydney Conference, Australia (1.800 EURO).
- **Scholarship from UNESCO-IHE**, for continue my flood vulnerability research (2009-2011) (62.157 EURO).
- **Prestigious Scholarship from HSP Huygens Programme for Excellence Students**, NUFFIC, for flood vulnerability index research at UNESCO-IHE, Delft, The Netherlands (2007-2009) (42.843 EURO).
- **Fellowship from the Ministry of Public Works**, Rijkwaterstaat, for Master of Science UNESCO-IHE, Delft, The Netherlands (2005-2007) (37.014 EURO)
- Part of **CNCSIS Romanian national project**, type A, theme 6, cod 718 (2005-2006) – Integrated Floods Management includes Management Plan of Banat Sub-catchment, Romania.

#### Journal Publications:

- S.F., Balica, Popescu, I., Beevers, L., Wright, N.G., 2013, **Parametric and physically based modelling techniques for flood risk and vulnerability assessment: a comparison**, Environmental Modelling & Software, 41 (2013) 84-92.
- S.F., Balica, Wright, N.G., van der Meulen, F., 2012, **A flood vulnerability index for coastal cities and its use in assessing climate change impacts**, Natural Hazards, Vol. 52, Springer Publisher, ISSN 0921-030X
- S.F., Balica, 2012, **Approaches of understanding vulnerability indices developments to natural disasters**, Environmental Engineering and Management Journal, June, 2012, Vol. 11 (5)
- Q., Dinh, S.F., Balica, I., Popescu, Jonoski, A., (2012), **Climate change impact on flood hazard, vulnerability and risk of the Long Xuyen Quadrangle in the Mekong Delta**, International Journal of River Basin Management, 10:1, 103-120
- S.F., Balica, N.G., Wright, (2010). **Reducing the complexity of Flood Vulnerability Index**, Environmental Hazard Journal, EHJ, 9 (4). 321 - 339. ISSN 1747-7891
- S.F., Balica, N., Douben, N.G., Wright, (2009a). **Flood Vulnerability Indices at Varying Spatial Scales**, Water Science and Technology Journal, WST 60.10. 2009, pg. 2571-2580
- S.F., Balica, N.G., Wright, (2009b). **A network of knowledge on applying an indicator-based methodology for minimizing flood vulnerability**, Hydrological Processes Journal. Volume 23 (20), pages 2983-2986, 25th of August 2009

#### Conference Publications:

- S.F., Balica, (2007) **Conceptualizing and visualizing flood vulnerability**, Workshop, Integrate Water Management, The Third Edition, 30-31.05.2007, Editura Orizonturi Universitare, ISBN: 978-973-638-326-7, Timisoara, Romania
- S.F., Balica and F. Gonzalez Pallais, (2006) **GIS in policy making**, Preventing and fighting hydrological disasters 2, July 2006, Timisoara, Romania
- S.F., Balica and G. Balla. (2006) **Forecast and Public Protection in the Banat Watershed using ArcGIS 9.1**, Preventing and fighting hydrological disasters 2, July 2006, Timisoara, Romania
- G., Cretu, C., Rosu, F., Mocanu, S.F., Balica, A., Pepa, A., Riti, **Above the Floods Occurred in April-May 2005, in the Banat Catchment's Area**, November 2005, Politehnica, Iasi
- G. Balla and S.F. Balica. **Sediment Transport in Watershed**, In Scientific Bulletin of "Politehnica" University of Timisoara, 13 May 2005, Timisoara, Romania
- G. Balla and S.F. Balica, **The Importance of Water Resources Management**. In Water for Life, The Sustainable Development of Water Resources, 22 March 2005, Timisoara, Romania.

S.F. Balica **Details of Renaturation Techniques of Some Water Bodies**, Integrated Water Resources Management, May 2005, Timisoara, Romania

S.F. Balica and G. Balla, **Watershed's Arrangement Schemes at High Water**, In World Water Day, Water and Disasters, 22 March 2004, Timisoara, Romania

Conferences/Workshops:

The **5th IWA Young Water Professionals Conference**, *A network of knowledge on applying an indicator-based methodology for minimizing flood vulnerability* in Sydney, Australia, on July 2010

The **EPCEM Symposium**, *Reducing the complexity of Flood Vulnerability Index* on 10 October 2008, Wageningen, the Netherlands

The **6th International Conference "Sharing a common vision of our water resources"** of EWRA, *Above the Floods Occurred in April-May 2005, in the Banat Catchment's Area*, 7-10 September 2005, Menton, France

**Development Methods on Drinking Water Alimentation and Effluent Purification**, *Watershed's Arrangement Schemes at High Water*, Technical-scientific Symposium, 04-05 October 2004, Timisoara, Romania

**Preventing and Fighting Hydrological Disasters**, International Conference, 21-24 November 2002, Timisoara Romania (helping organising)

Languages:

English, French – *fluent*, Italian, Spanish – *reading ability*, Romanian – *mother tongue*

Personal:

*Key Skills and Competencies*

Proven ability to manage through others

Strong decision making and problem solving skills

Able to motivate and lead others in a team environment

An ability to build rapport and trust quickly with work colleagues

Able to prioritise tasks and workloads in order of importance

Track record of delivering results with deadlines.

I am highly motivated and ambitious individual able to give timely and accurate advice, guidance, support and training to team members and students. Possessing management skills and having the ability to work with the minimum of supervision whilst leading a team as well. Having a proven ability to lead by example, consistently hit targets, improve best practices and organise time efficiently.

Interested in my personal web-site [www.unesco-ihe-fvi.org](http://www.unesco-ihe-fvi.org), music, movies and cultures of the world.