

# Diana Maria BUCUR



## WORK EXPERIENCE

2016 – present	Associate professor, Habilitated since March 2022
2009 – 2016	Lecturer
2006 – 2009	Assistant professor
2003-2006	Research assistant
2012 – 2016, 2020 – present	Member in the Department Board

University POLITEHNICA of Bucharest, 313 Splaiul Independentei, Bucharest, Romania  
Power Engineering Faculty  
Hydraulics, Hydraulic Machinery and Environmental Department  
*Teaching, educational, research and administrative activities*

### *Research, scientific and academic activity:*

- Publishing over 60 research and technical papers in journals and conferences (35 ISI papers /12 journals and 26 BDI papers)
- Co-author of 1 International Invention WOS-Derwent Indexed
- Manager of 8 research projects (5 of them with industrial beneficiary)
- Member of the research team in more than 30 projects regarding evaluation of turbines and pumps operation parameters, Transitory flow in hydraulic systems, Small hydropower potential.
- Member in PhD thesis guiding committees
- Coordinator of double PhD diploma program between UPB and Lulea University of Technology, Sweden
- Consulting supervisor MSc Thesis at Tarbiat Modares University, Tehran, Iran

### *Educational activity and experience:*

- Coordinator of the Hydro-informatics and Water Engineering Master program, at Power Engineering Faculty, UPB.
- Preparation of ARACIS documents for evaluation of licence program Hydropower and master program - Hydro-informatics and Water Engineering, at Power Engineering Faculty, UPB
- Short-term expert within POSDRU/90/2.1./S/58108/ Project – Rehabilitation of the Practical Activity System from the Upper Technical Educational Program / TRIPOD (Restructurarea Sistemului de Practică Productivă a Studenților din Învățământul Tehnic Superior)
- Administration assistant within POSDRU/86/1.2/S/61830/ Project – Quality Improvement for Upper Engineering Education – Informational support for Fluids Engineering/ PiiF (Creșterea calității învățământului superior de inginerie – Platforma Informatică pentru Ingineria Fluidelor)
- Erasmus and Erasmus+ students coordinator (Sweden, France)

- Coordinator of the practical internships for the students in Hydropower program (2007 – 2017)
- organization (including founding) of 16 technical visits for students: CHE Porțile de Fier (2005 - 2013), CHE Dobrești, CHE Moroieni și CHE Sinaia 0 (2006 - 2008), CHE Vidraru (2005, 2007, 2015), CHE Ipotești și CHE Arcești (2009).

**Teaching activity:** Turbomachinery hydrodynamics, Pumps and vents, Hydraulic turbines, Hydraulic machinery testing, Fluid mechanics, Hydraulic machineries, Technical drawing

- Coordination of diploma and master thesis (over 50)
- Member of the Diploma and Master evaluation committee
- Member of the Diploma and Master admission committee
- Coordination of extra-curricular research activities of students (over 40)

**Technical activity:**

- Head of Hydropower equipment laboratory
- Design/built/upgrade/operation of experimental laboratory and scale-up set-ups (teaching or research): Centrifugal pump operating as turbine, Two phase flow, Turgo Turbine, Measurement and monitoring system for hydrogenerator operation parameters.

**Administrative activity:**

- Rehabilitation of Research laboratories and working offices for staff and PhD students
- Open air exhibition with real bulb turbine
- Financing technical visits for students

March –August 2016 **Board Member**

SSH HIDROSERV SA, str. Constantin Nacu nr.3, Sector 2, București  
Maintenance of the hydropower plants and other related manufacturing activities  
Activities specific to the Company Board, according to the Constitutive Documents.

## EDUCATION AND TRAINING

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May 2014 – December 2015 **Post-doctoral training**

University POLITEHNICA of Bucharest, 313 Splaiul Independentei, Bucharest, Romania  
Power Engineering Faculty / Hydraulics, Hydraulic Machinery and Environmental Department  
Transient flow modelling, Genetic algorithm implementation, Fluid mechanics, Numerical methods

October 2004 – July 2011 **PhD Diploma**

ISCED 2011 level 8  
University POLITEHNICA of Bucharest / Power Engineering Faculty / Hydraulics, Hydraulic Machinery and Environmental Department  
Fluid mechanics, Hydraulics, Numerical methods, Hydropower plants and pumping stations

October 2003 – July 2004 **Master Diploma**

ISCED 2011 level 7  
Technical Hydraulics and Hydropower  
University POLITEHNICA of Bucharest / Power Engineering Faculty / Hydraulics, Hydraulic Machinery and Environmental Department

October 1998 – October 2003 **Engineer Licence**  
 ISCED 2011 level 6  
 University POLITEHNICA of Bucharest / Power Engineering Faculty / Hydraulics, Hydraulic Machinery and Environmental Department  
 Power engineering domain, Hydropower plants

September 1994 – June 1998 **Bachelor**  
 ISCED 2011 level 3  
 Assistant programmer, Informatics program  
 „Tudor Vladimirescu” High school, Bucharest

**PERSONAL SKILLS**

**Mother tongue(s)** Romanian

**Other language(s)**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B2	B1	B2	B1	A2
Spanish	B2	A2	B1	A1	A1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

**Communication skills**

- good communication skills gained through my experience from my teaching activity.

**Organisational / managerial skills**

- currently responsible for a team of 5 people, as head of the lab
- administrative and finance leader of the projects
- scientific events and workshop organizer
- preparation and coordination of industrial practical stages and technical visits for students
- team work spirit, voluntary

**Job-related skills**

- understanding and solving technical issues related to operation of hydropower equipment and machinery, both in laboratory and in site set-ups.
- activities within research projects involving in site measurements and evaluation of hydraulic machineries efficiency
- knowledge mainly related to fluid mechanics, hydraulic turbines, pumps and vents, hydraulic machinery testing and transient flows
- good command of quality control processes.

**Digital skills**      Operation system: WINDOWS  
Programming: Turbo Pascal, Basic, C++  
Usual pc packages: MS-Office, Adobe Photoshop, AutoCAD, CorelDraw  
Scientific packages: MATLAB, Ansys CFD, LabVIEW

**Driving licence**      Driving licence category B (1998)

#### ADDITIONAL INFORMATION

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Teaching lectures at Lulea University of Technology, Sweden, 2014-2016 (LLP-Erasmus)

Specialization:

- ▣ Research for PhD thesis at Universite LAVAL din Quebec, Canada, 2008
- ▣ Research for Master thesis at Universite de Liege, Belgia, 2004 (Erasmus)

Member of scientific committee:

- ▣ Romanian hydropower conference, Dorin PAVEL (2012-2018)
- ▣ XIV World Renewable Energy Congress (2015)
- ▣ CIEM (2017, 2019)

Reviewer at Transactions of the Institute of Fluid-Flow Machinery, Polish Academy of Sciences, EENVIRO (2016, 2018)

Member of national standardization committees ASRO 109, 133, 201

Member of AQUA NOSTRA professional association

Member of AIEE professional association

#### ANNEXES

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Detailed list of papers on [https://www.researchgate.net/profile/Diana\\_Bucur](https://www.researchgate.net/profile/Diana_Bucur)

Other information available on request

23.02.2023