

Associate Professor Petrica IANCU, PhD

University POLITEHNICA of Bucharest
Faculty of Chemical Engineering and Biotechnologies
Department of Chemical and Biochemical Engineering
Modelling, Simulation and Optimization of Chemical Processes
Group



Contact details

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Professional experience

Date	Role
2016-	Associate Professor, Department of Chemical and Biochemical Engineering, University POLITEHNICA of Bucharest
2002-2016	Lecturer, Departamentul de Inginerie Chimică, Universitatea POLITEHNICA din București
2001-2008	PhD in Chemical Engineering Inginerie chimică, University POLITEHNICA of Bucharest, Thesis Title: "Process Integration for Wastewater Minimisation in oil Processing and Petrochemistry", Thesis Supervisor: Prof. Emil DANCIU
2001-2002	Assistant, Department of Chemical and Biochemical Engineering, University POLITEHNICA of Bucharest
1999-2001	IT engineer, Human Resources Department, University POLITEHNICA of Bucharest
1998-1999	Advanced Studies, Computer Aided Chemical and Biochemical Engineering, Department of Chemical and Biochemical Engineering, University POLITEHNICA of Bucharest
1991-1999	Research Assistant/ Researcher, Department of Chemical and Biochemical Engineering, University POLITEHNICA of Bucharest
1986-1991	M.Sc. (Graduate Engineer/Diplomate engineer), Technology of Organic Compounds, Faculty of Industrial Chemistry, Polytechnical Institute Bucharest

Courses

- 13-17 march 1995: Course *Autocad R12 – Level 1*, UPB, Bucharest, Romania
- 19-23 june 1995: Course *Process Integration – Foundation Course1*, UPB, Romania
- 30 octomber-03 november 1995: Course *Process Integration – Foundation Course2*, UPB, Romania
- 20-21 november 1995: Course *Water and wastewater minimisation*, UMIST, UK
- 29 january 1996: Course *Process Integration – Basic Targeting*, UPB, Romania
- 30 january 1996: Course *Process Integration – Distillation*, UPB, Romania
- 31 january 1996: Course *Process Integration – Site Targeting*, UPB, Romania
- 01 february 1996: Course *Process Integration – Wastewater*, UPB, Romania
- 18-19 april 1996: Course *Water and wastewater minimisation*, UMIST, UK
- 14-16 april 1997: Course *Cogeneration and site utility systems in the process industries I*, UMIST, UK
- 13-14 may 1997: Course *Cogeneration and site utility systems in the process industries II*, UMIST, UK

- 24-25 june 1997: Course *Retrofit and debottlenecking for energy based systems*, UMIST, UK
- 01-02 december 1998: Course *Cogeneration and site utility systems in the process industries III*, UMIST, UK
- 08-09 december 1998: Course *Water and wastewater minimisation*, UMIST, UK
- 10-14 july 2000: Course *Project management*, AMCSIT Politehnica, Bucharest, Romania
- 13-17 november 2000: Course *SPL-Introduction to SQL and PL/SQL*, Oracle Romania, Bucharest, Romania
- 7 octomber 2008: Course *Training Course for Framework 7 Advisors*, Hyperion Ltd., Brussel, Belgium
- 21-23 september 2009: Course *Introduction to gPROMS*, Process Systems Engineering, London, UK
- 2 september 2010: Course *Workflow for Product Design and Development*, Cleanwaterbay Technology, Inc., Prague, Czech Republic

Research activities

Research Interests

a) Modelare și simulare

- Modelling and simulation of chemical processes
- Modelling and simulation of biochemical processes
- Mathematical modeling of physical-chemical properties of mixtures and complex compounds
- Energetic efficiency of chemical processes using process integration tools
- Innovative process design (reactive distillation column, high vacuum distillation column, molecular distillation processes, supercritical extraction processes) for biofuel and additive synthesis or PUFA esters concentration)

b) Studii experimentale

- Extraction of bioactive extraction from vegetal solids using supercritical fluids
- Extraction of bioactive extraction from liquid mixtures using supercritical fluids
- Biofuels synthesis using ionic liquids and omega esters purification

c) e-learning

- e-learning materials (video courses, multimedia applications, e-learning portals, etc.)

d) Information systems

- development of information systems for education and human resources for higher education institutions

Selected research projects

- Advanced separation systems for bioresources valorisation (ASPiRE), project POC-A.1-A.1.1.4-E-2015, ID P-37-449, 2016-2020, Scientific researcher
- eChemEng: Quality education in Chemical Engineerinh Higher Education, project POSDRU ID 156/1.2/G /141040, 2014-2015, Project Manager
- Training teachers for efficient use of modern ITC resources in teaching chemistry (e-Chimie), project POSDRU 87/1.3/S / 61839 - 2010-2013 - Project manager assistant
- Greenhouse gas emissions reduction through microalgal systems (GREENGHG), project PNII-PARTENERIATE 22085/01.10.2008, 2008-2011, UPB project manager
- Modelling and optimisation of water networks from reffining and petrochemical sites, project PNII-IDEI 663/19.01.2009, 2009-2011, Project manager
- New servicies for information systems for university management of human resources (SIMUGERU), project RELANSIN 2150/15.10.2004, 2004-2006, Project manager
- Wastewater minimization on reffining water networks, project nr. 48-04-30/2004, 2004, Project manager
- Wastewater minimization on reffining water networks, project nr 48-03-04/2003, 2003, Project manager
- Pinch Analysis applied on water networks from process industries, project CNCSIS, 2001-2003, Project manager
- Improving information systems for human resources management at UTM university, project 48-02-05/2005, 2005, Project manager

Academic activities

Studies	Program Name/Faculty	Title	Activity type
Bachelor	IC / IM / FCASM	Computer usage and computer aided design / Applied Informatics / Computer Aided Design Simulation of Chemical Processes Integration of Chemical Processes	Course/Laboratory
	CEPA / FCASM	Applied Informatics	Course/Laboratory
	IPA / FISB	Applied Informatics	Course/Laboratory
	CISOPC / FCASM CATB / FCASM	Unit operations in Chemical Processes	Project
	IC / FILS	Unit Operations	Course/ Seminary/ Project
Master	IM / FCASM	Wastewater minimization on industrial sites	Course/ Seminary/ Project

Membership of Professional Bodies

2007: Member of the Romanian Society for Chemical Engineering

2012-2018: Member of American Chemical Society

2016: Member of Council of the Faculty of Biotechnical Systems - UPB

Other Significant Activities

Management Director – Centre for Technology Transfer in Chemical Engineering (UPB-CTTIP)

Responsible of Laboratory for Applied Informatics in Chemical Engineering (LIAIC)

Responsible of Laboratory for Innovative Products and Processes (LPPI)

Responsible of Laboratory for Engineering of Supercritical Fluids Extraction Processes (LIPEFS)

Further Information

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