



## Europass Curriculum Vitae



### Personal information

First name(s) / Surname(s)

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Nationality

Romanian

Gender

F

### Employment / Occupational field

**Gheorghe Asachi Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection/ Environmental Engineering and Management Department  
Full Professor**

### Work experience

Dates

2017-present

Occupation or position held

Professor

Main activities and responsibilities

-Vice Dean for Research, Development, Innovation and International Relationships;  
-Scientific coordinator of the Environmental Engineering and Impact Assessment Research Center, Gheorghe Asachi Technical University of Iasi, accredited CNCSIS (2010-present);  
-EU expert for the European Research Council (ERCEA), Panel (PE 8) Products and Processing Engineering; Panel (LS9) Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering and for Research Executive Agency (REA), Bio-Based Industries Joint Undertaking;  
- MC and Romanian network coordinator of COST action CA 18224: „Green chemical engineering network towards upscaling sustainable processes” (2019-2023);  
-PhD supervisor and member in evaluation of doctoral theses committee;  
-Coordinator of the Laboratory for Complex and Integrated Processing of Biomass Med-Res Lab;  
-Editor of Bulletin of the Polytechnic Institute of Iasi, Series Chemistry, Chemical and Environmental Engineering;  
- Member of Editorial Board of Processes, EEMJ, and Global Environmental Engineers Journal;  
-Co-chair of the International Conference on Chemical Engineering: Innovative Materials for a Sustainable Development, ICCE 2016; ICCE 2018; ICCE 2020; ICCE 2022.  
[\(http://www.cercetare.icpm.tuiasi.ro/conferinte/ICCE2022/\)](http://www.cercetare.icpm.tuiasi.ro/conferinte/ICCE2022/);  
- Member of the Commission for Environmental Pollution Control, Romanian Academy, Iasi Branch;  
-Member of National Council for Attestation of Titles, Diplomas and Certificates CNATDCU, Environmental Engineering Committee (2016-2020);  
-Research in: complex and integrated processing of biomass, biorefining; sustainable design (recycling, recovery), green processes engineering (SFE, UAE, MAE, hydrothermal conversion); bio-based materials, carbonaceous materials, bioactive molecules; environmental biotechnology, bioremediation.

Name and address of employer

Gheorghe Asachi Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection

Type of business or sector

Higher education, research, management

Dates

2008- 2016

Occupation or position held	Associate Professor (Senior Researcher)
Main activities and responsibilities	Teaching, project manager, principal investigator, researching, evaluation, management, Head of Environmental Engineering and Management Department (2009-2012)
Name and address of employer	Gheorghe Asachi Technical University Iasi, Environmental Engineering and Management Department
Type of business or sector	Higher education, research
Dates	1999 – 2007
Occupation or position held	Lecturer (Senior Researcher)
Main activities and responsibilities	Teaching, research, project manager
Name and address of employer	Gheorghe Asachi Technical University of Iasi, Environmental Engineering and Management Department
Type of business or sector	Higher education, research
Dates	2001-2003
Occupation or position held	Technical Expert
Main activities and responsibilities	Project management, assessment and approval of applications for rural development projects in NE region of Romania
Name and address of employer	Ministry of Agriculture, Food and Forestry, SAPARD (Special Accession Program for Agriculture and Rural Development) Agency
Type of business or sector	Project management, assessments, risk reports
Dates	1997 – 1999
Occupation or position held	Senior Researcher
Main activities and responsibilities	Research and development, project manager, head of Laboratory
Name and address of employer	Research and Development Unit for Viticulture and Wine Making Iasi, 48, M. Sadoveanu street.
Type of business or sector	Research-Development and Technology Transfer
Dates	1995 – 1997
Occupation or position held	Researcher
Main activities and responsibilities	Research and development
Name and address of employer	Research and Development Station for Viticulture and Wine Making Iasi, 48, M. Sadoveanu street.
Type of business or sector	Research-Development

## Education and training

Dates	03. 2016
Title of qualification awarded	Habilitation Thesis: Integrated processing of biomass to value-added bio products with innovative environmental applications
Principal subjects/occupational skills covered	Environmental Engineering
Name and type of organisation providing education and training	Gheorghe Asachi Technical University of Iasi
Dates	05.2011
Title of qualification awarded	diploma I 0002630 2119
Principal subjects/occupational skills covered	Training program "Strategic academic management"
Name and type of organisation providing education and training	Gheorghe Asachi Technical University of Iasi
Dates	01.06 – 10. 06. 2009
Title of qualification awarded	Certificate of Completion

Principal subjects/occupational skills covered	Training and Research in Environmental Health in the Balkans
Name and type of organisation providing education and training	Michigan State University, Institute of International Health Program
Dates	10.1996 – 03.2002
Title of qualification awarded	PhD: Dynamics of polyphenols accumulation in <i>Vitis vinifera</i> sp. and some aspects on their bioactive properties
Principal subjects/occupational skills covered	Chemical Engineering
Name and type of organisation providing education and training	Gheorghe Asachi Technical University of Iasi
Dates	06.1994 – 09.1994
Title of qualification awarded	Diploma of studies
Principal subjects/skills covered	Oenology, Viticulture and Environmental Protection
Name and type of organisation providing education and training	Université Internationale d'Eté Narbonne France
Dates	09.1986 – 06.1991
Title of qualification awarded	Engineer Diploma
Principal subjects/occupational skills covered	Chemical Engineering and Industrial Management
Name and type of organisation providing education and training	Gheorghe Asachi Polytechnic Institute of Iasi, Faculty of Industrial Chemistry

### Personal skills and competences

Mother tongue(s) Romanian

Self-assessment

European level (\*)

English

French

#### Understanding

Listening

Reading

#### Speaking

Spoken interaction

Spoken production

#### Writing

C1

C2

B1

B2

C1

C1

C2

B1

B1

B2

Social skills and competences

Ability to work with other people, in multicultural environments, in situations where communication and teamwork are essentials

Organisational skills and competences

Coordination and management skills (people, projects, budgets)  
Leadership

Competences and expertise in evaluation

EU expert for the European Research Council (ERC), Panel (PE 8) Products and Processing Engineering; Panel (LS9) Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering and for Research Executive Agency (REA), Bio-Based Industries Joint Undertaking (BBIJU);  
Expert for UEFISCDI Romania, TE program; Evaluator of ARUT grants for Technical University of Cluj Napoca and for Polytechnic University of Timisoara;  
Official member in PhD defense committees (15) (Gheorghe Asachi Technical University of Iasi, Technical University of Cluj Napoca, University of Porto, Portugal, University Cote d'Azur, France);  
Member of CNATDCU, Environmental Engineering Committee (2016-2020);  
Reviewer for more than 25 ISI international scientific journals.

Technical skills and competences  
Social skills

Working with computer, with different types of research equipment facilities  
Teamwork in multicultural environments, where communication and collaboration are essential, responsibility, empathy, self-control.

Driving licence

B Category

## Additional information

### Research accomplishments

78 ISI peer-reviewed journal articles;  
38 peer-reviewed journal articles indexed in international data bases;  
91 international conference proceeding publications;  
1 monography Elsevier Ed;  
2 chapters Elsevier Ed, 2 chapters Springer Ed and 1 chapter De Gruyter;  
9 books and 4 chapters national Ed;  
67 research reports  
1 patent

**Over 2500 citations** recorded in Scopus Citation Index; h 21.  
<https://www.scopus.com/authid/detail.uri?authorId=15128343800>

**Over 4000 citation** in Google Scholar Citation Index, h 25.  
<https://scholar.google.com/citations?user=g8pcrWQAAAAJ&hl=en&oi=ao>

9 projects conducted as primary investigator and project manager and 33 projects (5 international +28 national) conducted as co-primary investigator or senior researcher.

### Areas of interest:

Assessment and identification of valuable bioresources for bio-based products and bio energy;  
Bio-based economy, Complex processing of biomass using green chemistry principles; biorefinery;  
Sustainable design (recovery, recycling).  
Green processes engineering (supercritical fluid extraction, ultrasonication, microwave assisted extraction, hydrothermal carbonization, pyrolysis) and applications for generated products;  
Environmental Biotechnology: bioremediation of degraded soils and poor crop production using biobased products as amendments; phytoremediation; ecological restoration.

### Other specializations and qualifications

- Expert in equal chances, diploma N 0227234/ 22.11.2022.
- "University strategic management", Gheorghe Asachi Technical University of Iasi, diploma I 0002630, 2119/9.05.2011.
- Training program "Nano Romania Workshop, organized by the CFU's Nano science Technology Center Florida USA, 2 to 5 June 2009.
- Intensive course in the Workshop's "Sustainable Tourism Certification Eco-Labeling" organized by the Environmental Engineering and Management Department in collaboration with International Institute for Industrial Environment and Economics, Lund, Sweden, April 2004.
- Intensive course in "Eco design and Product Innovation", organized by Environmental Engineering and Management Department in collaboration with International Institute for Industrial Environment and Economics, Lund, Sweden, April 2004.
- Intensive course in the Workshop's "Waste Management" organized by Environmental Engineering and Management Department in collaboration with International Institute for Industrial Environment Economics, Lund, Sweden, April 2004.
- Course "General English". EuroEd Foundation. International Language Center, Iasi, June 2002.
- Course Project Management Research, Development and Innovation, organized Agency for Scientific Research, Innovation and Technology Transfer - (AMCSIT) Politehnica Bucuresti, graduation certificate 630 / 08.06.2001.
- International Seminar "EU Directives and Voluntary Standardization in Support of Increasing the Economic Efficiency of the Standards Users" Iasi 30 August 31, 2001.
- Human Resources Training Program in Public Administration. European Integration Ministry, Iasi, June 2001.
- Course organized by the Center for Organization and Further calculation of specialists from the food industry (COCPCIA) Bucharest Certification for performing particular treatments, June 1993

Professional memberships	<p>European Federation of Biotechnology, Environmental Biotechnology Division (since 2019);</p> <p>Academic Organization for Environmental Engineering and Sustainable Development (since 2000);</p> <p>Alumni, Faculty of Industrial Chemistry (since 2004);</p> <p>Combating environmental pollution Commission, Roman Academy, Iasi Branch (since 2017);</p> <p>Romanian Society of Bioengineering and Biotechnology (2006-2009);</p> <p>Member of American Chemical Society (2007-2009);</p> <p>Member of Romanian Society of Chemistry (2009-2013);</p> <p>INTERMEDIUNET Romania (INRO), (2005-2012).</p>
Scientific prizes awarded	<p>European Exhibition of Creativity and Innovation, EUROINVENT 2018, Gold medal with special mention of the jury for Biomass as Renewable Raw Material to Obtain BioProducts of High-Tech Value, Editors: Valentin I. Popa and Irina Volf, Elsevier, 2018.</p> <p>International Exhibition of Inventions PROINVENT 8th edition, 2010, Cluj-Napoca - diploma and gold medal for excellence for BI: Concentrated grape juice with antioxidant properties and process for obtaining it. BI no. 122 471 in 30.07. 2009.</p> <p>Exhibition Regional Research, Bacau, 2009, Diploma of Excellence for research contract with the theme: Extending the facilities of laboratory for estimation, characterization and valorization of biomass by chemical and biotechnological processes.</p> <p>International Exhibition of Inventions, Scientific Research and Technologies, 2010, ANCS &amp; Romexpo Exhibitions Center, gold medal for BI Concentrated grape juice with antioxidant properties and process for obtaining it. BI no. 122 471/30.07. 2009.</p> <p>Academy of Agricultural Sciences and Forestry, Romanian Society of Horticulture, RSH Award for 2008 for the volume Eco-Technologies, Eco-Products, Eco-services, Irina Volf, Ed. Ecozone, Iasi, 2006.</p>
Visiting Professor	<p><b>2006:</b> Université d'Orléans, France, Institute de Chimie Organique et Analytique, June 2006.</p> <p><b>2007:</b> Munich Technical University, Institute of Advanced Studies on Sustainability, march 2007.</p> <p><b>2008:</b> Université de Haute Alsace Mulhouse, France, Juin 2008.</p> <p><b>2010:</b> Université de Rouen, France, July 2010.</p> <p><b>2011:</b> Université de Rouen, France, Juin-Julie 2011.</p> <p><b>2012:</b> Université de Pau et des Pays de l'Adour, France, Juin-Julie 2012.</p> <p><b>2013:</b> Université de Toulon Var, France, May - Juin, 2013.</p> <p><b>2014:</b> University of Porto, Portugal, May 2014.</p> <p><b>2015:</b> University of Porto, Portugal, June 2015.</p> <p><b>2016:</b> University of Porto, Portugal, September 2016.</p> <p><b>2019:</b> Université Sophia Antipolis Nice, France, Institute de Chimie de Nice, France, June 2019.</p>
Journals Reviewer	<p>American Journal of Agriculture and Food Chemistry; Molecules; Food Bioscience; Carbohydrate Polymers; Bioresources; Folia Microbiologica; Current Opinion in Food Science; Food Chemistry; International Journal of Modern Biology and Medicine; Arabian Journal of Chemistry, Chemical Engineering Journal, Waste and Biomass Valorization, Journal of the Science of Food and Agriculture.</p> <p>Journal of Cleaner Production; Desalination and Water Treatment; Journal of Colloid and Interface Science; Environmental Technology; Bulletin of Iasi Polytechnic Institute; Environmental Engineering and Management Journal; Cellulose Chemistry and Technology; Fresenius Environmental Bulletin; Environment International; Environmental Science and Technology, Agrotechnology, International Journal of Phytoremediation, Land Degradation &amp; Development.</p> <p>ECOZONE Press Editor</p>

Developing partnerships in the framework of Erasmus+

- "Gheorghe Asachi" Technical University of Iasi Romania - **Université d'Orleans**, France, Erasmus+ Program, 2022-2027.
- "Gheorghe Asachi" Technical University of Iasi Romania – **Kocaeli University**, Turkey, Erasmus + bilateral agreement in 2014- 2021, 2022-2024.
- "Gheorghe Asachi" Technical University of Iasi Romania - **Università degli Studi di Modena e Reggio Emilia** Erasmus + bilateral agreement in 2014- 2021, 2022-2024.
- "Gheorghe Asachi" Technical University of Iasi Romania - **Akademia im Jana Dlugoszaw Czestochowie** (Jan Dlugosz University in Czestochowie) Erasmus + bilateral agreement in 2014-2021.
- "Gheorghe Asachi" Technical University of Iasi Romania – **University of Porto**, Portugal, Erasmus and Erasmus + bilateral agreement in 2013, 2014-2021, 2022-2024.
- "Gheorghe Asachi" Technical University of Iasi Romania - **Université d' Avignon**, France, Erasmus bilateral agreement in 2013, 2014-2021.
- "Gheorghe Asachi" Technical University of Iasi Romania - **Ege University**, Ýzmir, Turkey, Erasmus+ bilateral agreement, 2000- 2014, 2014-2021, 2022-2024.
- "Gheorghe Asachi" Technical University of Iasi Romania - **Université d'Artois**, France, the bilateral LLP (Lifelong Learning Program) Erasmus Program, 2008 – 2012.

The experience in national or international grants, programs/projects

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|-----------------------------|---|
| 1993 -2000                  | ORIZONT 2000 program - Processes, Procedures and Technologies for Conservation, Industrialization and Exploitation of Food Resources, Protection of Food and Human Nutrition. Biotechnology and bioengineering of specific operations, processes, procedures and technologies for increasing food resources and products quality. |
| 1993 - 2000                 | Systems, modules, plants and equipment for agro-systems environmental and economic performance.   |
| 1995-2000                   | COPMOL Program: New technologies in Viticulture and Winemaking in NE region and Republic of Moldova plantations.  |
| 2000 – 2002                 | RELANSIN Program: Patenting and Promote the Production of a New Vine Variety for White Superior Wines with Increased Resistance to Frost.   |
| 2001-2004: project leader   | RELANSIN Program, contract 1531/2001: Isolation and Selection of Yeast Strains in Areas with Cotnari origin designation, for Obtaining Vineyard Specific Wines.   |
| 2002 – 2004: project leader | AGRAL Program, contract 222/2002: Implementing and Promoting the Technology for a New Food Supplement with Antioxidant Activity based on Natural Grape Juice and Seed Extracts.   |
| 2001-2004                   | AGRAL Program: Legalization of <i>Busuioacă de Bohotin</i> Clones with High Production Quality designed to Produce Aromatic Rosé Wines.   |
| 2001-2003                   | The NURC Contract -2001: Antioxidant natural Compounds and Pathway of Synthesis.  |
| 2001-2003                   | GROWTH Program 2001: Coordination network for Lignin EC Standardization, Production and Applications Adapted to Market Requirements (EUROLIGNIN).   |
| 2005-2006                   | NURC Grant A, Contract 34664/24.06.2005, Code 511, issue 27, Identification and Analysis of Strategies and Technologies for Pollution Prevention and Cleaner Production, as Instruments of Sustainable Development, Production Systems and Services.  |
| 2005-2006                   | NURC Grant A, code 774: Bioremediation of Environmental Factors Affected by Pollution applying Specific Processes of Chemical Engineering and Biotechnology.  |
| 2005-2008                   | CEEX Program - 2005: contract no.65/2005 Advanced Treatment Technologies to Recycle Industrial Effluents (RIWATECH).  |
| 2005-2007                   | CEEX Program - 2006: M3 CNMP, contract 115/2007 Integrated Network for Sustainable Management of Water Resources.   |
| 2005-2008                   | CEEX Program – 2006, contract no.91/2005: New nanostructured systems for controlled release of pharmacological agents (NANOCOFARM).   |
| 2006                        | CEEX Program - M2 2006 contract no. 1650/26.09.2006. Education and Training in Research Management. SC Rulmentul Barlad.  |
| 2006                        | CEEX Program - M2 2006 contract no. 1651 / 26.09.2006. Education and Training in Research Management. SC Antibiotice SA Iasi.   |

2006-2008	Program Socrates Erasmus–MOD-51388-IO-1-2004-1-RO-ERASMUS-MODUC-6. „MASS-Management and Security Assessment for Sustainable Environment”.
2007 - 2009: project leader	PNCIDI II Program Capacities, contract no.94/2007; Infrastructure Development of Laboratory in order to Estimate, Characterize and Recovery Renewable Resources (biomass), using Chemical and Biotechnological Processes”(Medres LAB).
2007 - 2010: project leader	P2 PNCIDI II Partnerships in Priority Areas; funding contract no. 61 038/18.09.2007 Advanced Research for Microbiological Agents Elimination in Water Purification Processes Using a new UV Radiation Prototype.
2008-2011	PN II ID 2008 PCE 2, Ideas, Code 368, Combined Processes of Advanced Wastewater Treatment for Persistent Organic Pollutants Elimination and Wastewater Biodegradability Improvement.
2008-2011	PNCIDI II Partnerships in Priority Areas; funding contract No 32 125/2008, Technical and Decisional-Support System for Sustainable Water Management.
2007-2011	COST FP 0602 Biotechnology for Lignocelluloses Biorefinery.
2009 – 2012: MC substitute	COST FP 0901 Analytical Techniques for Biorefinery.
2009-2012 key investigator	POSDRU/52/5.2/G/38328 Integrated Strategy for the Development of Private Initiative in non-Agricultural Sectors in Rural Areas of Bacau County.
2007-2012	POS-DRU 2007-2013 Correct Information – The key for studies recognition, Ministry of Education, Research and Innovation, National Centre for Recognition and Equivalence of Diplomas CNRED.
2011-2012	POSDRU/87/1.3/S/61397 National Network for Continuing Education of Teachers in Vocational and Technical School Education – CONCORD.
2012-2015	PNCIDI II Partnerships in Priority Areas; contract no 223/2012, Inquiry-Based Education in Science and Technology.
2015: project leader, Principal investigator	1447P/30.09.2015 CCMP Plantavorel SA: The extraction of polyphenols and flavonoids with antimicrobial and anti-inflammatory properties from <i>Salvia officinalis</i> biomass using supercritical fluids
2016: project leader, Principal investigator	736P/30.05.2016 - CCPPM Plantavorel SA The extraction of polyphenols from <i>Impatiens</i> biomass using supercritical fluids. Preliminary tests.
2017-2020	PN-III-P4-ID-PCE-2016-0683, Contract 65/12.07.2017, Exploring and exploiting the abilities of microorganisms and plants and their interactions for environmental bioremediation (BIOREMIP).
2017-2020 key investigator	PN-III-P4-ID-PCE-2016-0500, Contract 41/ 2017, Valorisation of biomass wastes from biofuels production in heavy metals biosorption processes with applications in environmental bioremediation.
2017-2019	CDI – STAR, Contract 157/2017, Sustainable biochemical method for revitalizing air in spacecraft.
2019-2023 MC Romanian network coordinator	COST CA 18224: Green chemical engineering network towards upscaling sustainable processes.
2019-2021	PN III P2-ID-PED-2019-1165; Bio trickling filtration upgrade in the context of atmospheric protection and climate change.
2020-2022	PN-III-P4-ID-PCE-2020-1520; Biofiltration of air from urban automotive underground spaces.
2022-2024 Project leader, principal investigator	PN-III-P4-PCE-2021-1455, Porous materials derived from biomass wastes with application in environmental remediation and hydrogen storage.

Budgets of managed contracts as principal investigator:

PN III PCE 225000 euro, PNCIDI II Program Capacities, contract no. 94/2007 – 620.000 euro; PNCIDI II Partnerships in Priority Areas; contract no. 61 038/18.09.2007 – 638.000 euro; AGRAL Program, contract 222/2002, 61000 euro; RELANSIN Program, contract 1531/2001, 60000 euro

Annex

List of publications

March, 2023

Professor Irina VOLF