

PERSONAL INFORMATION

Elisabeta Cristina TIMIS



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<https://www.brainmap.ro/elisabeta-cristina-timis> UEFISCDI ID (UEF-ID): U-1900-063Z-1974

<https://scholar.google.ro/citations?user=7ANYelMAAAAJ&hl=en>

🗣 https://www.researchgate.net/profile/Elisabeta_Timis and <https://www.linkedin.com/in/cristinaani/>

Sex F | Date of birth 26/03/1981 | Nationality Romanian

POSITION

University Lecturer

I am a professional with multidisciplinary work experience and educational background. I have academic and industrial R&D and Project Management practice, with a proven track record of successful projects implementation.

WORK EXPERIENCE

February 2019 – present

University Lecturer

Department of Chemical Engineering, Faculty of Chemistry and Chemical Engineering, Research Centre in Computer Aided Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania, <http://www.chem.ubbcluj.ro/romana/ANEX/inginerie/index.php>

- Course and laboratory: Mathematical Modelling of Processes and Artificial Intelligence.
- Laboratory teaching: Automation of Chemical Processes.
- Research areas of interest: computer aided process/systems engineering; process modelling, simulation and control; optimization of processes and products; development of engineering tools to reduce experimental workload; artificial intelligence in chemical and environmental engineering; water pollution and water management, river water quality; pollutant transport and pollution counteraction; new product development; product evaluation; stucco/ gypsum based building materials development, testing and validation.
- Member of the Social and Economic Council of Babes-Bolyai University, <https://ttc.centre.ubbcluj.ro/ces/componenta/>

Business or sector Education and Research

July 2011 – February 2019

Product Development Specialist

Saint-Gobain Construction Products Romania, Rigips Business Unit, Fabrica de Ipsos Turda, Cluj, Romania, <https://www.rigips.ro/>

- Lead product development for gypsum-based powders (a cross-departments team of 5 technical people): from product design to product launch and in-market technical behaviour monitoring.
- Transform market needs and internal opportunities into profitable products or technology.
- Ownership and accountability for the product portfolio from technical and performance point of view.
- Design product strategy and new product together with other departments.
- Budgeting and ensure budget and timeline fulfilment together with technical goals.
- Cooperation and coordination between own department and other departments and project prioritization. Work with geographically distributed team.
- Ensure PD is done in line with national, EU and company internal standards and capacities.
- Technical support/training for customers and sales team regarding new products. Development of internal training tools (e.g. product defects manual).
- Co-expertise claims in case of major concern. Define quality control criteria for new products and raw materials. Documentation and reports for new product and new raw material approval.
- Saint-Gobain International Technical Group member: disseminate and support international projects.
- Leader to major projects: 2 new products developed and launched, cost reduction (>20), product optimization (>20), products alternative formulations (>10), new raw materials tested and approved (>20), product ageing studies (>5).
- Contributor to implementing technological investments in Turda Plaster Plant (e.g. innovative packaging line worth 1.65 Million Euro, co-founded by the Eu Found for Regional Development).

Business or sector Construction Materials Manufacturing

September 2011 – February 2019

Technical Consultant

Freelancing

- Projects for different business areas: food industry; agri-business; services. Use of specific software, development of engineering tools and other technical requests. Technical training.

Business or sector Engineering

October 2010 – March 2012

Post-doctoral researcher

 Computer Aided Process Engineering Research Centre, Babeş-Bolyai University, Cluj-Napoca, România, http://www.chem.ubbcluj.ro/romana/ANEX/inginerie/centre/ccdicac/ccdicac_2020_ro.html

- Research on modelling and control of complex systems, founded within the frameworks of the European Social Fund Project POSDRU/89/1.5/S/60189. Coordinating student's research projects: one MSc and two BEng.
- Teaching assistant: Theory of Systems; Process Optimization.
- Author and co-author of research projects proposals: one FP7, one Erasmus Mundus and two national projects. Published books and articles. Details available upon request.
- Research stage: June 2011, Lappeenranta University of Technology, Finland.

Business or sector Education and Research

EDUCATION AND TRAINING

October 2005 – September 2010

Doctor in Chemical Engineering

EQF level 8

Faculty of Chemistry and Chemical Engineering, Babeş-Bolyai University, Cluj-Napoca, Romania

- Thesis "Modelling of pollutant transport in rivers: process engineering approach"
- One international research visit, in May 2007 at the Eidgenössische Technische Hochschule (ETH) Zurich, Institut für Automatik, Zurich, Switzerland. Working for the common institutional partnership project IB7420-111104.

September 2005 – December 2009

Doctor of Science in Technology (awarded with Honours)

EQF level 8

Lappeenranta University of Technology, Lappeenranta, Finland

- Thesis: "Minimization of the experimental workload for the prediction of pollutants propagation in rivers. Mathematical modelling and knowledge re-use"
- Research and development activities for the doctoral thesis, within the frameworks of the double PhD degree agreement between Babeş-Bolyai University and Lappeenranta University of Technology. Scholarship awarded by the Academy of Finland.
- Two research visits from May to July 2008 at the Centre for Ecology & Hydrology (CEH Wallingford), Oxfordshire, England and Heriot-Watt University, The School of the Built Environment, Edinburgh, Scotland.

October 2004 – June 2005

MSc in Chemical Engineering

EQF level 7

Faculty of Chemistry and Chemical Engineering, Babeş-Bolyai University, Cluj-Napoca, Romania

- Advanced Process Engineering. Computer Aided Process Engineering.
- Dissertation: "Modelling and simulation of an ideal binary distillation column"

October 1999 – June 2004

Dipl. Eng. in Chemical Engineering

EQF level 6

Faculty of Chemistry and Chemical Engineering, Babeş-Bolyai University, Cluj-Napoca, Romania

- Computer Aided Chemical Systems. Process Engineering.
- Diploma work: "Modelling and simulation of hydrogen-oxygen PEM fuel cells"
- Erasmus scholarship from February 2003 to May 2003, Polytechnic University of Cataluña, School of Industrial Engineering of Barcelona (ETSEIB), Spain.

October 2001 – June 2016

BA in Political Sciences

EQF level 6

Faculty of Political Science and Public Administration, Babeş-Bolyai University, Cluj-Napoca, Romania

- Political Sciences. Dissertation on democracy and democratization: "Bosnia-Herzegovina Police Reform through international monitoring"

October 1999 – June 2003

Certificate of graduation of Pedagogic Module

Babeş-Bolyai University, Cluj-Napoca, Romania

- Licence to teach courses related to the obtained BSc and BA degree.

October 1999 – June 2003

Baccalaureate Diploma

Replace with education or training organisation’s name and locality (if relevant, country)

- Replace with a list of principal subjects covered or skills acquired

2003 - 2021

Training

- 7409 - DeltaV Implementation I using DeltaV Live, Emerson Romania, European Operation Training Center, Cluj-Napoca, July 2022
- Academic Advanced Teaching Skills, Babes-Bolyai University & Euroexam, Cluj-Napoca, September 2021
- EON-XR Educator Course, Cluj-Napoca, 2021
- Open course: Solving real problems with the help of artificial intelligence techniques, May 2021
- Environment, Health and Safety Continuous Improvement, Turda, 2011 – 2016
- Error Identification and Solving Strategy, Turda, September 2016
- Corporate Anti-Corruption, Turda, July 2011 and September 2016
- European Competition Law, Turda, July 2011 and September 2016
- Gender Balance Awareness, Turda, September 2016
- Giving and Receiving Feedback, Cluj-Napoca, September 2015
- Strategically Thinking, Bucharest, September 2013
- Cellulose ethers for gypsum-based powders, April 2013
- Defensive Driving, March 2013
- Additives for Construction Products, Bucharest, November 2012
- Jointing Compounds and Building Plasters, Puchberg (Austria), November 2011
- Building Plasters, East Leak (England), December 2011
- Value Stream Mapping, Turda, October 2011
- COMSOL use for Transport Phenomena and Chemical Engineering, Zurich (Switzerland), May 2007
- Data Analysis and Development with MATLAB Products, Bucharest, November 2006
- UK-SouthEastEurope Forum. People and politics strand. Series of trainings and workshops on political process and political party organizations. British Council, Cluj-Napoca, Bucharest and Sofia (Bulgaria), March 2004 – January 2007
- Project writing and project management, August 2002 and October 2003

PERSONAL SKILLS

Mother tongue

Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
ALPHA Centre Certificate of Language Ability, 2005					
Spanish	C1	C1	C1	C1	C1
French	B1	B1	B1	B1	B1
ALPHA Centre Certificate of Language Ability, 2004					
German	A1	A1	A1	A1	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

Good communication and presentation skills gained through my experience in academia (conference presentations, student coaching and teaching) and industry (project management, customer technical support and training, work with geographically distributed teams).

Willing and supportive for giving and receiving feedback due to the lessons learned during academic coaching, industrial project management and frequent evaluation sessions.

Organisational / managerial skills

- Strong work consciousness and ethic.
- Leadership: coordinating a team of 5 people during the industrial product development activity.
- Project management: multiple industrial projects carried out successfully.
- During the industrial experience I became comfortable leading cross-functional teams, involving experts in quality, industrial manufacturing, supply chain, marketing and sales.
- A good attitude. A team works much better when its members are happy.
- Proven multi-tasking abilities by the diverse fields of education and activity I have carried out.
- Timelines are not a problem for me, even when under intense pressure.
- I enjoy sharing and receiving knowledge with the aim of team growth and objectives achievement.
- Easily adaptable to new activity fields illustrated by the various areas I have worked in.
- Capable to take ownership of problems and solve them efficiently.
- Persuasive, focused and goal oriented.

Job-related skills

- Expertise in Chemical Engineering / Computer Aided Process Engineering: mathematical modelling of processes; parameter estimation; optimization techniques; knowledge management (e.g. case-based reasoning); transport phenomena (e.g. distillation columns), environment and sustainable development (e.g. water quality; river pollution counteraction using automated control systems; pollution propagation).
- Good knowledge of teaching and research related processes
- Knowledge on project writing and management
- Good command of building materials development process
- Cost reduction via product and process optimization
- Test design and laboratory / site test workload minimisation
- Expertise in interior coating products and raw materials: gypsum based plasters, cellulose ethers, starch ethers, retarders and other additives used in building products.

Computer skills

- Good command of Microsoft Office™ tools (word processor, spread sheet, presentation software)
- Programming, modelling and control: Matlab™, Matlab/Simulink™, COMSOL™, DeltaV™
- Computer Aided Chemical Process Design: ChemCAD™
- Used in the past (beginner): LabView™, Visual Basic™, ArcView GIS™, LaTeX™, SPSS™

Driving licence

- B

ADDITIONAL INFORMATION

Publications

Publications in WoS

- 1) Crisan, C.A., **Timis, E.C.**, Vermesan, H., PickT: a decision-making tool that supports the optimal pickling process operation, under review at Industrial & Engineering Chemistry Research
- 2) **Timis E.C.**, Hutchins, M.G., Cristea M.V., 2022. Advancing understanding of in-river phosphorus dynamics using an advection-dispersion model (ADModel-P). *Journal of Hydrology*, 612, Part B, 128173, <https://doi.org/10.1016/j.jhydrol.2022.128173>
- 3) **Timis E.C.**, 2022. Improvements necessary for a river pollutant transport model to obtain a better performance. *Studia Universitatis Babeş-Bolyai Chemia*, 67, 1, 75-87, DOI: 10.24193/subbchem.2022.1.05
- 4) **Timis (Ani) E.C.**, Cristea M.V., Agachi P.Ş., 2015. Factors influencing pollutant transport in rivers: Fickian approach applied to the Somes River. *Revista de Chimie*, 66, 9, 1495-1503.
- 5) Cristea V.M., **Ani E.C.**, Agachi P.S., 2013. Advanced Control Used for Counteracting Accidental Pollutant Propagation in Rivers, *Computer Aided Chemical Engineering*, 32, 1003-1008.
- 6) **Ani E.C.**, Cristea M.V., Agachi P.Ş., 2012. Mathematical models to support pollution counteraction in case of accidents. *Environmental Engineering and Management Journal*, 11, 1, 13-20.
- 7) **Ani, E.C.**, Avramenko, Y., Kraslawski, A., Agachi, P.Ş., 2011a. Identification of pollution sources in Romanian Somes River using graphical analysis of concentration profiles. *Asia-Pacific Journal of Chemical Engineering*, 6, 5, 801-812, DOI:10.1002/apj.522.
- 8) **Ani E.C.**, Cristea V.M., Agachi P.Ş., 2011b. Process engineering tools to reduce river in-stream pollution. *Chemical Engineering Transaction*, 24, part 3, 1075-1080, DOI: 10.3303/CET1124180
- 9) **Ani E.C.**, Hutchins M.G., Kraslawski A., Agachi P.Ş., 2010a. Mathematical model to identify nitrogen variability in large rivers. *River Research and Applications*, 27, 1216-1236. DOI: 10.1002/rra
- 10) **Ani E.C.**, Cristea V.M., Agachi, P.Ş., Kraslawski A., 2010b. Dynamic Simulation of Somes River Pollution Using MATLAB and COMSOL Models. *Revista de Chimie*, 61, 1108-1112.
- 11) **Ani E.C.**, Hutchins M.G., Kraslawski A., Agachi P.Ş., 2010c. Assessment of pollutant

- transport and river water quality using mathematical models. *Revue Roumanie de Chimie*, 55, 4, 285-291.
- 12) **Ani, E.C.**, Hutchins, M.G., Agachi, P.Ş., 2010d. Advection-dispersion model for nutrient dynamics in River Swale. In: Carrera, J., Sanchez-Vila, X., Fernandez-Garcia, D., Bolster, D. (Eds.), *Programme and Proceedings of the XVIII Conference on Computational Methods in Water Resources (CMWR 2010)*, June, 21-24, 2010, Barcelona, Spain, Dsignum Estudi Grafic, ISBN: 978-84-96736-93-1, <http://congress.cimne.com/CMWR2010>, p. 39, paper 276.
 - 13) **Ani E.C.**, Wallis S.G., Kraslawski A., Agachi P.Ş., 2009. Development, calibration and evaluation of two mathematical models for pollutant transport in a small river. *Environmental Modelling and Software*, 24, 10, 1139-1152.
 - 14) Avramenko Y., **Ani E.C.**, Kraslawski A., Agachi P.Ş., 2009b. Mining of graphics for information and knowledge retrieval. *Computers and Chemical Engineering*, 33, 3, 618-627.
 - 15) **Ani, E.C.**, Wallis, G., Kraslawski, A., Agachi, P.Ş., 2009c. Detailed mathematical model for pollutants transport in a natural stream. *Computer Aided Chemical Engineering*, 26, 731-736, doi: 10.1016/S1570-7946(09)70122-1.
 - 16) **Ani, E.C.**, Avramenko, Y., Kraslawski, A., Agachi, P.Ş., 2009d. Selection of models for pollutants transport in river reaches using case based reasoning. *Computer Aided Chemical Engineering*, 27, 537-542, doi: 10.1016/S1570-7946(09)70310-4.
 - 17) **Ani E.C.**, Agachi P.Ş., 2008. Prediction of the behaviour of a hydrogen-oxygen PEM fuel cell based on a simplified model. *Revue Roumaine de Chimie*, 53(5), 357-362.

Papers published in conference proceedings (that were also presented in conferences)

- 1) **Timis E.C.**, 2022. Estimation of uncontrollable and unclassifiable pollutant sinks and sources along a river stretch employing software tools. Ed. Ortega-Sánchez, M., *Proceedings of the 39th IAHR World Congress – IAHR 2022*, Granada, Spain, 19–24 June 2022, IAHR, ISSN-L 2521-7119, ISBN/EAN: 978-90-832612-1-8, Theme 6, Paper 06-01-003-81, 3623 – 3631. doi:10.3850/IAHR-39WC25217119202281, <https://cmswebonline.com/iahr2022/epr/html/06-01-003-81.xml>
- 2) **Ani E.C.**, Cristea M.V., Agachi P.Ş., 2011c. Mathematical models to help pollution counteraction in case of accidents. In: Teodosiu C., Redey A., Robu B. (Eds.), 2011, *Proceedings of the 6th International Conference Environmental Engineering and Management: Green Future: Conference Abstracts Book*, 1st – 4th of September 2011, Balaton, Hungary, Ecozone, Iasi, 163-164.
- 3) **Ani, E.C.**, Agachi, P.Ş., 2007. Numerical models to simulate pollution scenarios in Someş River. Paper 2029 in: Gani R. and Johannsen D.J., *6th European Congress of Chemical Engineering (ECCE-6) Proceedings book*, September, 16-21, Copenhagen, Denmark, ISBN 9788791435560 & 8791435560, <http://www.ecce6.kt.dtu.dk/>, Vol. 1, 985.

Books

- 1) **Ani, E.C.** 2009. Minimization of the experimental workload for the prediction of pollutants propagation in rivers. Mathematical modelling and knowledge re-use. Acta Universitatis Lappeenrantaensis 355, Lappeenranta teknillinen yliopisto, Digipaino, Lappeenranta, Finland, pp. 189. ISBN 978-952-214-829-2.

Chapters in books

- 1) **Ani, E.C.** 2009. Research report: I. The identification of pollution sources from long term monitoring data. II. The reuse of knowledge in modelling pollutant transport in rivers. In: Maria Ljung (Ed.), *Yearbook 2008, Graduate School in Chemical Engineering*. Abo Akademi University, Turku, Finland, ISSN 1238-2647, p. 1-10.
- 2) **Ani, E.C.** 2008. Research report: Propagation of pollutants and availability of high quality water in a river basin - case of Someş Basin Rivers. In: Maria Ljung (Ed.), *Yearbook 2008, Graduate School in Chemical Engineering*. Abo Akademi University, Turku, Finland, ISSN 1238-2647, 21-30.
- 3) **Ani, E.C.**, Agachi, P.S. 2008. Prediction of the behaviour of a hydrogen-oxygen PEM fuel cell based on a simplified model. In: Thullie, J., Gierczycki, A., Piotrowski, K. (Eds.), *Computer Aided Process Engineering – current problems and trends*. Gliwice, Poland, ISBN: 978-83-60716-46-5, 77-92.
- 4) **Ani, E.C.** 2007. Research report: Propagation of pollutants and availability of high quality water in a river basin as supply chain management - case of Someş Basin rivers. In: Maria Ljung (Ed.), *Yearbook 2007, Graduate School in Chemical Engineering*. Abo Akademi University, Turku, Finland, ISSN 1238-2647, 19-27.

Software and data sets

- 1) [software] Timis, E. C., 2021. ADModel for phosphorus compounds (ADModel-P), HydroShare, <https://doi.org/10.4211/hs.6b2cde0ea82b439d83cf96f5b61aa1f6> (30.09.2021)
- 2) [software] Timis, E.C., 2020. ADModel for phosphorus compounds, HydroShare, <https://doi.org/10.4211/hs.ec5a38dcb26f4e0a855bb9c1010fa083>
- 3) [dataset] Hutchins, M. G., Timis, E. C., 2020. Field data for the development of ADModel,

HydroShare, <https://doi.org/10.4211/hs.858aaf445ca645f5948a7bd73c16cdd6>

Presentations / Conference /
Technical Forums

Presentations (others than conference papers mentioned above)

- 1) Borota, M., **Timis, E.C.**, 2022. Transfer of pollutant transport modelling knowledge from River Swale to River The Cut (UK). The XVIIIth edition of the International Conference Students for Students, Cluj-Napoca, 06-09 April 2021, Conference Book of Abstracts, 21-22.
- 2) Borota, M., **Timis, E.C.**, 2021. Testing different optimization algorithms for the calibration of a pollutant transport model. The XVIIth edition of the International Conference Students for Students, Cluj-Napoca, 21-25 April 2021, Conference Book of Abstracts, 19-21.
- 3) Crisan, A.C., **Timis, E.C.**, Vermesan, H., 2021. Corrosion rate modelling for steel in acidic media using cetylpyridinium bromide as a green inhibitor. The XVIIth edition of the International Conference Students for Students, Cluj-Napoca, 06-09 April 2022, Conference Book of Abstracts, 42-43.
- 4) **Timis, E.C.**, Cindea C.A., 2016, New PE Plaster Packing Line, aka Project BIG FISH. PE Packaging best practices. *Saint-Gobain Gypsum Powders Community Technical Meeting: Plasters & Jointing Compounds – Developed Countries*, Cluj, Romania, 23-26 May 2016.
- 5) **Timis, E.C.**, Cindea C.A., 2015, New PE Packing Line at Turda Factory. Aka project BIG FISH. Project preparation and line implementation. *Saint-Gobain Gypsum Powders Community Technical Meeting: Plasters & Jointing Compounds – Developed Countries*, Bari, Italy, 19-29 October 2015.
- 6) **Timis, E.C.**, 2014, Building Plasters Development 2013 - 2014 Projects at Turda Plaster Plant, for the *Saint-Gobain Gypsum Powders Community Technical Meeting: Plasters & Jointing Compounds*, Zaragoza, Spain, October 2014.
- 7) **Timis, E.C.**, 2013, Building Plasters Development. 2013 Projects, *Saint-Gobain Gypsum Powders Community Technical Meeting: Plasters & Jointing Compounds*, Puchberg, Austria, 22-28 April 2013.
- 8) **Timis, E.C.**, 2012a, New Joint Filler development and launch, *Saint-Gobain Gypsum Jointing Community Technical Meeting*, Vaujourns, France, 08-11 May 2012.
- 9) **Timis, E.C.**, 2012b, Turda Plaster Plant Building Plasters Projects update, *Saint-Gobain Gypsum Plasters Technical Meeting*, Quorn, Leicestershire, England, 9-16 June 2012.
- 10) Avramenko Y., **Ani E.C.**, Kraslawski A., Agachi P.Ş., 2010. Identification of pollution sources in rivers using the graphical analysis of concentration profiles. 19 International Congress of Chemical and Process Engineering *CHISA 2010* and the 7 European Congress of Chemical Engineering *ECCE-7*. Aug. 28 – Sept. 1, Prague, Czech Republic, no. 1392, P5.195.
- 11) **Ani, E.C.**, Kraslawski, A., Hutchins, M.G., Agachi, P.S. 2009d. The models for pollutant transport in rivers as decision support tools for the rational management of the river water quality. In: *International Forum-Competition of Young Researchers. Topical Issues of subsoil usage. WG 8*, St. Petersburg State Mining Institute.
- 12) Avramenko Y., **Ani E.C.**, Kraslawski A., Agachi P.Ş. 2009e. Mining of graphics for the assessment of pollution sources along the river. *CAPE Forum 2009*, March, 27-28, Limerick, Ireland.
- 13) **Ani, E.C.**, Kraslawski, A., Agachi, P.S. 2008. Pollutant transport characterization as a function of river characteristics and pollutant release type. *OP. 3.5., CAPE Forum 2008*, February, 7 -8, Thessaloniki, Greece.
- 14) **Ani, E.C.**, Cristea, V.M., Agachi, P.S. 2007. Dynamic simulation of Somes river pollution using MATLAB and COMSOL models. *10th Edition of Academic Days of Timișoara*, 24- 25th of May, Timișoara, Romania.
- 15) **Ani, E.C.**, Agachi, P.S. 2006. Modelling and Simulation of PEM Hydrogen-Oxygen Fuel Cells. *CAPE Forum 2006*, February, 10-12, Gliwice, Poland.

Projects

National Research Projects Membership

- PNCDI Parteneriate 71-006/2007, Romanian National Centre for Programs Management (CNMP), 2007-2010, 300.000 RON, "Mathematical modelling and automatic control by using artificial intelligence tools applied to chemistry and process engineering". Publications: Ani et al., 2010b; Ani et al., 2010c; Ani et al., 2010d.
- PNCDI Parteneriate 12131/25.09.2008, Romanian National Centre for Programs Management (CNMP), 2008-2010, 500.000 RON, "Expert system for contained prognosis of hepatic chronic disorders using the analysis of biological and portal hemodynamic parameters". (Ani et al., 2009c)
- PNCDI Capacitați 100/CP/II/2007, Romanian National Authority for Scientific Research (ANCS), 2007-2009, 2.000.000 RON, "Food Safety Control by developing an integrate system of modeling, simulation and advanced control of the fermentative bioprocesses in food industry".
- CEEEX 612/2005, Romanian National Centre for Programs Management (CNMP), 2005-2008, 1.500.000 RON, "Integrated evaluation system of pollutants propagation in running waters and estimation of their impact on population health in the area". Publications: Ani et al., 2011a; Avramenko et al., 2009; Ani and Agachi, 2007.
- CNCSIS 1324/2006, 2006-2007, "Predictive methods for the counteraction of accidental river pollution using evolved control based on mathematical modelling". Publications: Ani, Agachi, 2007.

International Research Projects Membership

- POSDRU 89/1.5/S/60189, co-financed by the European Social Fund, 2010-2012, „Postdoctoral Programs for Sustainable Development in a Knowledge Based Society”. Publications: Timis et al., 2015; Cristea et al., 2013; Ani et al., 2012; Ani et al., 2010b.
- IB7420-111104 (2007, Swiss National Science Foundation).

Technical expert in European Projects

- POCU/626/6/13/130631, Traineeship for sustainable development, 12.2020 – 10.2022.
- POCU/380/6/13/124146, Quality, innovative and relevant doctoral and postdoctoral research for the labour market, 05.2020 – 09.2021.
- POCU/380/6/13/123886, Entrepreneurship for innovation through doctoral and postdoctoral research, 04.2020 – 04.2022.
- POCU 90/6/13/5/14/109175, Competent CFB, 07.2019-08.2019 and 12.2020-01.2021.

Honours and awards

Paper ranking: July to September 2009 - ScienceDirect TOP25 Hottest Articles – paper #10: Ani, E.C., Wallis, S.G., Kraslawski, A., Agachi, P.Ş., 2009. Development, calibration and evaluation of two mathematical models for pollutant transport in a small river. Environmental Modelling and Software, 24, 10, 1139-1152.

Award: December 2003 - Babes Bolyai University Award for Contribution to the Academic Reform Process. Cluj-Napoca, Romania.

Award: November 1998 – Corneliu Coposu Bistrița-Năsăud Foundation Special Award for Extracurricular Activity and School Performances. Bistrița, Romania.

Scholarship: August 2007 - PhD Research Scholarship within the frameworks of the Graduate School in Chemical Engineering, founded by the Ministry of Education and the Academy of Finland.

Scholarship: PostDoc Position founded by Sectoral Operational Programme for Human Resources Development 2007-2013, co-financed by the European Social Fund, under the project number POSDRU 89/1.5/S/60189 with the title „Postdoctoral Programs for Sustainable Development in a Knowledge Based Society”.

Research Grant: May – July 2008, Research stages abroad founded by the Graduate School in Chemical Engineering, the Academy of Finland.

Memberships

- 2021 – present, member of The International Association for Hydro-Environment Engineering and Research (IAHR)
- 2021 – present, member of the European Water Association (EWA)
- Babes-Bolyai University Students Organization (OSUBB), General Secretary, 2001 – 2005
- Students in Political Sciences Society, Babes Bolyai University, Project coordinator, 2001 – 2002
- Active member of the National Peasant's Christian Democratic Party (PNȚCD) between 1998 – 2004, with the highest position of National Vice-President between 2003 and 2004.

Scientific Committees

Reviewer
Evaluator

Scientific Committees

- Member: 10th International Conference on Chemical and Process Engineering, Florence, May 2011

Reviewer

- Environmental Pollution, Q1;
- Limnology and Oceanography: Methods, Q1
- Ecological Modelling, Q2
- Proceedings of Institution of Civil Engineers - Water Management, Q3
- Studia Universitatis Babeş-Bolyai Chemia, Q3
- Environmental Engineering and Management Journal
- Tanzania Journal of Science
- Chemical Engineering Transactions

Funding calls scientific projects evaluator

- The Executive Agency for Higher Education, Research, Development and Innovation Funding, 2021