



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) Luminita Grecu
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E-mail lumigrecu@hotmail.com
Nationality Romanian
Date of birth 14 July 1969
Gender Female

Work experience

Dates	2011 – present
Occupation or position held	Associate Professor
Main activities and responsibilities	Academic activity
Name and address of employer	Department of Applied Mathematics, University of Craiova, Romania
Type of business or sector	Higher education system
Dates	2009 – 2011
Occupation or position held	Associate Professor
Main activities and responsibilities	Academic activity
Name and address of employer	Faculty of Engineering and Management of Technological Systems, Drobeta Turnu Severin, University of Craiova, Romania
Type of business or sector	Higher education system
Dates	2003 – 2009
Occupation or position held	Assistant Professor
Main activities and responsibilities	Academic activity
Name and address of employer	Faculty of Engineering and Management of Technological Systems, Drobeta Turnu Severin, University of Craiova, Romania
Type of business or sector	Higher education system
Dates	2000 – 2003
Occupation or position held	Assistant Professor
Main activities and responsibilities	Academic activity
Name and address of employer	University College of Drobeta Turnu Severin, University of Craiova, Romania
Type of business or sector	Higher education system
Dates	1997 – 2000
Occupation or position held	Teaching Assistant
Main activities and responsibilities	Academic activity
Name and address of employer	University College of Drobeta Turnu Severin, University of Craiova, Romania
Type of business or sector	Higher education system
Dates	1993 – 1997

Occupation or position held Junior Teaching Assistant
 Main activities and responsibilities Academic activity
 Name and address of employer University College of Drobeta Turnu Severin, University of Craiova, Romania
 Type of business or sector Higher education system

Education and training

Dates 2004 – 2005
 Title of qualification awarded Postgraduate studies: "Computer Aided Design"
 Name and type of organisation providing education and training Faculty of Engineering and Management of Technological Systems, Drobeta Turnu Severin, University of Craiova, Romania
 Level in national or international classification ISCED 8

Dates 1996 – 2004
 Title of qualification awarded PhD. in Exact Sciences, Domain Mathematics
 Principal subjects/occupational skills covered PhD Thesis title: Boundary element method applied in fluid mechanics, scientific coordination: Acad. Prof. Dr. Doc. Lazar Dragos
 Name and type of organisation providing education and training University of Bucharest, Faculty of Mathematics, Romania

Dates 1988 – 1993
 Title of qualification awarded Diploma in mathematics (Master's equivalent)
 Level in national or international classification ISCED 7
 Name and type of organisation providing education and training University of Bucharest, Faculty of Mathematics, Romania

Dates 1984 – 1988
 Title of qualification awarded Bacalaureate Diploma
 Name and type of organisation providing education and training High school of mathematics-physics „Traian” , Drobeta Turnu Severin, Romania

Dates 2005 – 2008
 Title of qualification awarded Economist Diploma
 Name and type of organisation providing education and training Faculty of Economic Sciences and Business Administration, University of Craiova, Romania

Personal skills and competences

Mother tongue(s) Romanian
 Other language(s)
 Self-assessment

English
French

European level (*)

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1	C2	C1	C2	C2
B2	C1	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
 (*) [Common European Framework of Reference for Languages](http://www.cerl.eu).

Social skills and competences	<i>Team work, good attitude</i>
Organisational skills and competences	<i>Attention to details, ability to motivate, self confidence, positive and proactive attitude</i>
Computer skills and competences	<i>Competent with Microsoft Office programs, programming languages (Turbo Pascal, C/C++), and software like MATHCAD, MATLAB, MAPLE</i>
Domains of competence	Numerical Methods, Boundary Element Method, Mathematical models and numerical methods in Fluid Mechanics
Driving licence	B
Additional informations	
Memberships	member of the Romanian Society of Applied and Industrial Mathematics (ROMAI) -from 2004; member of the Romanian Society of Mathematical Sciences (SSMR) - from2002; member of IAENG (International Association of Engineering) - from2008.
Awards	UEFISCDI 2015 Award (PN-II-RU-PRECISI-2015-9-9016) - for the article: „An improved numerical solution of the singular boundary integral equation of the compressible fluid flow around obstacles using modified shape functions”; UEFISCDI 2013 Award (PN-II-RU-PRECISI-2013-7-3327) - for the article: „A solution with cubic boundary elements for the compressible fluid flow around obstacle”; Numerous awards and mentions at the National Olympiads of Mathematics and National Mathematical Competitions during the gymnasium and high-school period, 1982-1988;
Courses (taught)	Mathematic Analysis, Linear Algebra, Analytical and Differential Geometry, Numerical Methods and Programms of Numerical Calculus, Superior Mathematics, Finite and Boundary Elements, at undergraduate level, at Faculty of Mechanics.
ANEXES	Research activity and selceted publications

ANEXES

Research activity

1. Research contract no. 71-135/2007, (PN II – PC) beneficiary: Ministry of Education and Research; coordinator: ISIM. – Timisoara; partner: University of Craiova, Faculty of Engineering and Management of Technological Systems from Drobeta Turnu Severin; partnership coordinator: prof. Mihail Mangra; title: *Systems of microjunction for elements of circuit and package of microsensors and actuator*; acronym: MICROWELD; funding course: 2007-2010.
2. Research grant EXCELENCE RESEARCH (CEEX) no. 85/2006, beneficiary: Ministry of Education and Research; coordinator: University of Craiova, Faculty of Engineering and Management of Technological Systems from Drobeta Turnu Severin; coordinator: prof. Mihail Mangra; title: Knowledge development on the elaboration and micro processing of the nanostructured materials for MEMS components by powder metallurgy technology; acronym: PRONANOMAT; funding course: 2006-2008.
3. Research grant EXCELENCE RESEARCH (CEEX) no. 266/2006, beneficiary: Ministry of Education and Research; coordinator: Institute of Welding and Materials Testing, ISIM, Timisoara, Romania; partner: University of Craiova, Faculty of Engineering and Management of Technological Systems, Drobeta Turnu Severin; partnership coordinator: prof. Mihail Mangra; title: *Multifunctional microlayers for Ti-alloys covering by advanced technologies*; acronym: MICROFUNCTIA; funding course: 2006-2008.
4. Research grant EXCELENCE RESEARCH (CEEX), beneficiary: Ministry of Education and Research; coordinator: ISIM. – Timisoara; partner: University of Craiova, Faculty of Engineering and Management of Technological Systems from Drobeta Turnu Severin; partnership coordinator: prof. Mihail Mangra; title: Virtual center for integrated technologies with applications of the electrical sounds energy in advanced materials engineering acronym: ULTRATECH.
5. Research contract no. 24/S/16.01.2006, beneficiary Ministry of Economy and Trade, RAAN: project-coordinator: lecturer Patrascioiu Constantin; title: *Mathematical and numerical models for studying the destructions produced in different materials because of their impact with liquid or solid particles, the vortexes, and the cavitations and their impact on the environment*; 2005-2006.
6. Research contract no. 38/S/30.04.2009, beneficiary: SC Porexim SRL project-coordinator: Grecu Luminita; title: *Using simulton techniques inoptimizing the production process at SC Porexim*, 2009-2010.

Selected publications

ISI journals

- G.Demian, L. **Grecu**, M.Demian, Aspects about applying multi-criteria methods for selection of encapsulation materials for photovoltaic cells, *Environental Engineering and Management Journal*, Vol 15 nr 10, 2016.
- L. **Grecu**, „An improved numerical solution of the singular boundary integral equation of the compressible fluid flow around obstacles using modified shape functions”, *Boundary Value Problems* (2015), 2015:35, doi 10.1186/s13661-015-0294-8.
- L. **Grecu**, „A solution with cubic boundary elements for the compressible fluid flow around obstacles”, *Boundary Value Problems* (2013), 2013:78 doi:10.1186/1687-2770-2013-78
- L. **Grecu**, G. Demian, M. Demian, Obtaining the optimal parameters in a laser hardening process through Taguchi method, *Journal of Optoelectronics and Advanced Materials*, Volume: 15 Issue: 7-8 Pages: 689-695, 2013.
- L **Grecu**, G Demian, M Demian, „Two boundary element approaches for the compressible fluid flow around a non-lifting body”, *University Politehnica of Bucharest Scientific Bulletin, Series A: Applied Mathematics and Physics*, Vol.71, Iss.1, 2009.

ISI Proceedings and BDI

- M. Demian, **L. Grecu**, G.Demian, Studies regarding the influence on the surface roughness material of the cutting regime during the milling processing, *Advanced Materials Research* Vol. 1128 (2015) pp 271-281 , doi:10.4028/www.scientific.net/AMR.1128.271
- **L. Grecu**, Aspects about Using Onicescu Method for Studying Problems of Environmental Quality, *Advanced Engineering Forum* Vol. 13 (2015) pp 254-259 , *Advances in Engineering & Management*, Selected, peer reviewed papers from the 3rd International Conference Advances in Engineering and Management (ADEM 2014), September 11-12, 2014, Dr. Tr.-Severin, Romania, doi:10.4028/www.scientific.net/AEF.13.254
- **L. Grecu**, „Considerations about Using Truncation Method to Treat the Singularities when Solving with Higher Order Boundary Elements the Boundary Integral Equation of the Compressible Fluid Flow”, *Lecture Notes in Engineering and Computer Science* Year: 2012 Vol: 2197 Issue: 1, *Proceedings of the World Congress on Engineering*.
- **L. Grecu** Linear Boundary Elements for Solving the Nonsingular Boundary Integral Equation of the Fluid Flow around Obstacles, *Acta Universitatis Apulensis, Mathematics-Informatics*, Special Issue: ICTAMI 2011, pg 501-512.
- I Vladimirescu, **L. Grecu**, “A Direct BEM with Higher Order Boundary Elements for the Compressible Fluid Flow around Smooth Obstacles”, *Lecture Notes in Engineering and Computer Science: Proceedings of The International Conference on Engineering Mathematics*, in *World Congress on Engineering 2010*, pp 1711-1716, ISSN: 2078-0958.
- I Vladimirescu, **L. Grecu**, “Weakening the Singularities for their Numerical Evaluation when Applying BEM for 2D Compressible Fluid Flow”, *Lecture Notes in Engineering and Computer Science: Proceedings of The International MultiConference of Engineers and Computer Scientists 2010*, pp 2224-2229, ISSN: 2078-0958.
- **Grecu L**; Grecu V; Demian G; Demian M, “ Simulations based on Noise Maps for Machinery Location at Workplace in Order to Avoid Noise Pollution”, *Annals of DAAAM for 2009 & Proceedings of the 20th INTERNATIONAL DAAAM SYMPOSIUM*, 25-28th November 2009, ISSN 1726-9679.
- Demian M, Demian G, **Grecu L.**, Grecu V., Flow Studies on Pipes Working on High Temperature and Pressure, pag 1653-1654, *Annals of DAAAM for 2009 & Proceedings of the 20th INTERNATIONAL DAAAM SYMPOSIUM*, 25-28th November 2009, ISSN 1726-9679.
- **L.Grecu**, V.Grecu, M.Demian, G.Demian, „A Complex Variable Boundary Element Method for the Flow around Objects”, *International Conference on Engineering Mathematics (ICAEM 09)* in *World Congress on Engineering*
- **Grecu L**, Grecu V, Demian G, Demian M., *A Mathematical and Numerical Approach of the Non-Stationary Temperature Field in case of the Action of an Electron Beam on a Material*; *Recent Advances in Engineering Mechanics, Structures and engineering Geology*, *Proceedings of the 2nd International Conference on Engineering Mechanics, Structures and Engineering Geology Greece*, 2009, pag 214-220.
- Demian G, Demian M, **Grecu L**, Grecu V, *Simulation of Temperature Field on Steels during Laser Hardening*; *Recent Advances in Engineering Mechanics, Structures and engineering Geology*, *Proceedings of the 2nd International Conference on Engineering Mechanics, Structures and Engineering Geology Greece*, 2009, pag 229-233.
- Demian G, Demian M, **Grecu L**, Grecu V, *Non-Destructive Tests to Determine Lifetime of the Pipes*; *Recent Advances in Engineering Mechanics, Structures and engineering Geology*, *Proceedings of the 2nd International Conference on Engineering Mechanics, Structures and Engineering Geology Greece*, 2009, pag 220-224.
- **Grecu L**, Grecu V, “*Aspects about treating integrals of singular kernels when applying BEM to solve 3D problems of fluid flow*”, *Recent Advances in Continuum Mechanics Proceedings of the 4th International Conference on Continuum Mechanics (CM'09)*, Cambridge, 2009, pag 46-49.
- G Demian, M Demian, **L. Grecu**, V Grecu , “*Studies about Noise Pollution in Urban Areas*”, *Recent Advances in Acoustic & Music: Theory & Applications*, pag 87-92, *Proceedings of the 10th International Conference on Acoustics & Music: Theory & Applications (AMTA '09)*, Praga, 2009.
- M Demian, G Demian, **L. Grecu**, V Grecu, “*Influence of the Heat Treatment and the Ultrasonic Waves Attenuation at the 34MoCrNi14 Steel10*”, *Recent Advances in Acoustic & Music: Theory & Applications*, pag 79-83, *Proceedings of the 10th International Conference on Acoustics & Music: Theory & Applications (AMTA '09)*, Praga 2009.
- **L. Grecu**, I Vladimirescu “*BEM with Linear Boundary Elements for Solving the Problem of the 3D Compressible Fluid Flow around Obstacles*”, *Proceedings of the International MultiConference of Engineers and Computer Scientists 2009*, vol II, pag. 2174-2178, Hong Kong, 2009.
- **Grecu L**, Petrita T, „*A numerical approximation of the free-surface heavy inviscid flow past a body*”, *Buletinul Academiei de Științe Repub. Moldova, Matematică*, nr 3/2008, pag 67-75.
- **L. Grecu**: “*Solving the Problem of the Compressible Fluid Flow around Obstacles by an Indirect Approach with Vortex Distribution and Linear Boundary Elements*”, *Wseas Transaction on Mathematics*, Issue 7, Volume 7, July, 2008.
- **L. Grecu**, I Vladimirescu, “*About some techniques of Improving Numerical Solutions Accuracy when Applying BEM*”, *International Journal of Mathematics and Computers in Simulation*, Vol2/2008, Issue3, pag 264-273.

- **L Grecu**, "An indirect boundary element method with vortex distribution and linear boundary elements for the compressible fluid flow around obstacles", Advances in Applied Mathematics, Systems, Communications and Computers, pag 50-55, a North Atlantic University Union Conference, Marathon Beach, Attica, Greece, June 1-3, 2008.
- **L. Grecu**, Gabriela Demian, Mihai Demian, "Different Kinds of Boundary Elements for Solving the Problem of the Compressible Fluid Flow around Bodies-a Comparison Study", The 2008 International Conference of Applied and Engineering Mathematics, London, 2-4 July, 2008, in Lecture notes in Engineering and Computer Science, pag. 972-977.
- **Grecu L**; Demian G; Demian M, "A Mathematical Approach of the Temperature Field in Case of Electron Beam Welding", Annals of DAAAM for 2008 & Proceedings of the 19th INTERNATIONAL DAAAM SYMPOSIUM, October 2008, pag 280-281.
- **L Grecu**: "The Influence of different Sources of Errors when Applying BEM to the Compressible Fluid Flow around Obstacles", Recent advances in Mathematical and Computational Methods in Science and Engineering, Proceedings of the 10th International Conference on Mathematical and Computational Methods in Science and Engineering (MACMESE'08), Bucharest, 2008, pag 368-373.
- M Demian, G Demian and **L Grecu**: "Investigation with Ultrasonic Waves to Determine Metallic Materials Properties", Recent Advances in Materials Science, 2008, pag 86-89, Proceedings of the 1st International Conference on Materials Science, Bucharest, 2008.
- **Grecu L**: "Error Analysis when Boundary Element Method is Used to Solve the Problem of the Compressible Fluid Flow Around Obstacles", The XVIth Conference on Applied and Industrial Mathematics, CAIM 2008, Oradea, October 9-12, 2008
- **L Grecu**, "A Boundary Element Approach for the Compressible flow Around Obstacles", Acta Universitatis Apulensis, Mathematics-Informatics, No 15/2008, pag 195-213.
- **L Grecu**, Petrita T, "A Complex Variable Boundary Element Method for the Problem of the Free-surface Heavy Inviscid flow over an obstacle", General Mathematics nr 2 /2008.
- **L Grecu**, "A Direct Boundary Element Approach with Linear Boundary Elements for the Compressible Fluid Flow around Obstacles", The XVth Conference on Applied and Industrial Mathematics CAIM 2007, published in ROMAI JOURNAL, Vol 3, nr.2, 2007, pag 141-151.
- **Grecu L**, „A Solution of the Boundary Integral Equation of the 2D Fluid Flow around Bodies using Quadratic Isoparametric Boundary Elements", The 13th Conference on Applied and Industrial Mathematics, Pitești, 2005, published in ROMAI JOURNAL, vol 2, nr.2, 2006, pag 81-88.
- **Grecu L**, „A Solution of the Boundary Integral Equation of the Theory of the Infinite Span Airfoil in Subsonic Flow with Linear Boundary Elements", Analele Univ. București, Mat., Anul LII,Nr. 2(2003), pp.181-188.

Books

- **L. Grecu**, Numerical Methods with Applications in C/C++, Editura Universitaria, Craiova, 2009, 234 pag.
- I. Vladimirescu, **L. Grecu**: "Linear Algebra, Analytical and Differential Geometry", Editura Universitaria, Craiova, 2007
- **Grecu L**, „Solved Problems of mathematical analysis", Editura TipoRadical, Dr. Tr. Severin, 2006.
- **Grecu L**, Ionescu A., „Chapters of Algebra", Editura Universitaria, Craiova, 2005.
- A. Ionescu, M. Costescu, **L. Grecu**, Elements of numerical calculus. Computational Models", Editura Universitaria, Craiova, 2005.
- Patrascoiu C., **Grecu L**, Bordeasu I., „Mathematics applied in Techniques", Editura Politehnica, Timisoara, 2003.
- Vasile T., Stuparu D., **Grecu L**, „Superior Mathematics", Editura Scrisul Romanesc, Craiova, 1997.
- Vasile T., Stuparu D., **Grecu L**, „Mathematics", Editura Hermes, Dr. Tr. Severin, 1996.

Other professional activities

- International summer school: „Characteristic p- Methods in Algebraic Geometry", Dr. Tr. Severin, 13-19 iulie 2007, organised by SSMR (Romanian Mathematical Society) MH branch and IMAR (Institute of Mathematics of the Romanian Academy).
- Teacher of mathematics at "Gh. Titeica"- National College, Drobeta Turnu Severin, 1993-1996.