

CURRICULUM VITAE - Cosmin G. Chiorean

1. Informatii personale

Numele si prenumele: Chiorean Cosmin-Gruia

Data si locul nasterii:

Pozitia academica in prezent:

Adresa: Str., Cluj-Napoca, Romania

Numar de telefon, e-mail: , cosmin.chiorean@mecon.utcluj.ro

Web: www.cosminchiorean.com

Web of Science: <https://www.webofscience.com/wos/author/record/48117309>

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=6508271760>

Google Scholar: <https://scholar.google.ro/citations?user=f6Oez7EAAAAJ&hl=en>



2. Educatie

- 2013 Abilitare (Conducator de doctorat) in domeniul inginerie civila, Universitatea Tehnica de Constructii, Bucuresti. https://www.cosminchiorean.com/docs/habilitation_thesis.html
- 2002 Postdoctorat, Universitatea Nova din Lisabona, Portugalia (2002-2004)
- 2001 Doctor in inginerie civila, Universitatea Tehnica din Cluj- Napoca.
- 1996 Master in inginerie civila, Univ. Tehnica din Cluj- Napoca, Facultatea de Constructii.
- 1999 Universitatea Babes- Bolyai, Facultatea de Matematica, Sectia Informatica, Cluj-Napoca
- 1995 Universitatea Tehnica din Cluj- Napoca, Facultatea de Constructii, Cluj-Napoca
- 1990 Liceul Emil Racovita, Matematica- Fizica, Cluj-Napoca

3. Experienta profesionala

2009-prezent Profesor universitar, Universitatea Tehnica din Cluj-Napoca, Facultatea de Constructii: Cercetare stiintifica, conducere de doctorat in domeniul ingineriei civile (modelarea si analiza avansata a structurilor, 5 teze de doctorat validate), Activitati didactice (Dinamica si Stabilitatea Structurilor, Metode numerice, MEF, Analiza Neliniara a Structurilor), evaluari academice si institutionale. Responsabil stiintific program masteral cu dubla diploma in ingineria structurilor (Universitatea Bergamo, Italia).

<https://ls-ie.unibg.it/it/opportunita-e-studi-allestero/doppio-titolo-double-degree>

2016-2020 Cercetator stiintific I-Universitatea Babes-Bolyai, Facultatea de Stiinta si Ingineria Mediului, in cadrul proiectului: “Sisteme inteligente privind siguranta populatiei prin controlul si reducerea expunerii la radon corelate cu optimizarea eficientei energetice a locuintelor din aglomerari urbane importante din Romania” - SMART-RAD-EN, cod MySms: 103427 <http://www.smartradon.ro/echipa>

2012-prezent Directorul structurii de cercetare: “Computational Modeling and Advance Simulation in Structural and Geotechnical Engineering” <https://www.cosminchiorean.com/CMASSGE.pdf>

2011-2020 Director al departamentului de Mecanica Constructiilor din cadrul Facultatii de Constructii, Universitatea Tehnica din Cluj-Napoca.

2007-prezent Cercetator dezvoltare software SC GeoStru Software (www.geostru.eu)- Dezvoltare pachete software in domeniul ingineriei geotehnice si structurale (GFAS-Finite element systems for geotechnical applications; RSLIII-2D-Local Seismic Response of Soils and Structures) <https://www.geostru.eu/product-category/software-en/geotechnical-software/>

2002-2004 Cercetator bursier (postdoctorat), Facultatea de Stiinta si Tehnologie, Departamentul de Inginerie Civila, Universitatea Nova din Lisabona, Portugalia (Studii avansate cu privire la aplicarea metodei elementelor finite in analiza la impact balistic a materialelor compozite).

1996-2001 Doctorand cu frecventa (bursier), Universitatea Tehnica din Cluj-Napoca, Analiza neliniara avansata a structurilor in cadre (analiza statica si dinamica neliniara a structurilor, metoda elementelor finite, metode numerice, informatica aplicata).

1995-1999 Inginer proiectant, SC Consort Constructii SRL: proiectare structurala si cercetare in domeniul automatizarii proceselor de proiectare (structuri de rezistenta in constructii, instalatii).

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4. Zece publicatii selectionate (www.cosminchiorean.com)

1. **Chiorean C.G.**, Computational Issues in Biaxial Bending Capacity Assessment of RC and Composite Cross-Sections Exposed to Fire, *Computers & Structures*, Elsevier, 2024 (Q1-WoS; Revised Manuscript CAS-D-24-00120R1).
2. **Chiorean C.G.**, Passera, D., Ferrari R., Rizzi, E., An Implementation for 2nd order M-N-Coupling and Geometric Stiffness Adaptation in Tapered Beam-Column Elements, *Engineering Structures*, Elsevier, 225, 111241, 2020 (Q1-WoS).
3. **Chiorean, C.G.**, Second-order Flexibility-Based Model for Nonlinear Inelastic Analysis of 3D Semi-Rigid Steel Frameworks, *Engineering Structures*, Elsevier, 136: 547-579, 2017 (Q1-WoS).
4. **Chiorean, C.G.**, Marchis, I.V., A Second-Order Flexibility-Based Model for Steel Frames of Tapered Members, *Journal of Constructional Steel Research*, Elsevier, 132: 43-71, 2017 (Q1-WoS).
5. **Chiorean C.G.**, Buru S. Practical Nonlinear Inelastic Analysis Method of Composite Steel-Concrete Beams with Partial Composite Action, *Engineering Structures*, Elsevier, 134:74-106, 2017 (Q1-WoS)
6. **Chiorean, C.G.**, A Computer Method for Nonlinear Inelastic Analysis of 3D Composite Steel-Concrete Frame Structures, *Engineering Structures*, Elsevier, 57: 125-152, 2013 (Q1-WoS).
7. **Chiorean, C.G.**, Computerised Interaction Diagrams and Moment Capacity Contours for Composite Steel-Concrete Cross-Sections, *Engineering Structures*, Elsevier, 32(11): 3734-57, 2010 (Q1-WoS).
8. **Chiorean, C.G.**, A Computer Method for Nonlinear Inelastic Analysis of 3D Semi-Rigid Steel Frameworks, *Engineering Structures*, Elsevier, 31(12): 3016-33, 2009 (Q1-WoS).
9. **Chiorean, C.G.**, Barsan, G.M., Large Deflection Distributed Plasticity Analysis of 3D Steel Frameworks, *Computers & Structures*, Elsevier, 83 (19-20):1555-71, 2005 (Q1-WoS).
10. Silva, M.A.G., Cismasiu, C., **Chiorean, C.G.**, Numerical Simulation of Ballistic Impact on Composite Laminates, *International Journal of Impact Engineering*, Elsevier, 31 (3):289-306, 2005 (Q1-WoS).

5. Proiecte de cercetare pe baza de grant (selectie)

- Grantul POC-A1-A1.1.4-E-2015 (P-37-229) finantat ANCSI "Smart Systems for Public Safety through Control and Mitigation of Residential Radon linked with Energy Efficiency Optimization of Buildings in Romanian Major Urban Agglomerations (coordonator Prof. Carlos Sainz Univ. Cantabria, Spania –Universitatea Babes-Bolyai) : Configurare modele numerice avansate de predicție asistate de experiment, simulare numerică. 2016-2020. <http://www.smartradon.ro/echipa>
- Grantul PNIU-IDEI/193/2008 (Proiecte de cercetare exploratorie-PCE) finantat UEFISCDI "Proiectarea si evaluarea performantelor seismice a structurilor in cadre spatiale prin analiza statica neliniara avansata"- 2009-2012. <http://users.utcluj.ro/~ccosmin/RESEARCHPROJECT.htm>
- Grantul POCTI/36055/ECM/2000 finantat de Fundatia pentru Stiinta si Tehnologie (FCT), Portugalia, "Aplicacao de Algoritmos Geneticos e Redes Neuronais a Optimizacao e Fiabilidade Estrutural", 2004.- Univ. Nova din Lisabona, Facultatea de Stiinta si Tehnologie, Departamentul de Inginerie Civila, Universitatea Nova din Lisabona, Portugalia.
- Grantul POCTI 43228/EME/2001- finantat de Fundatia pentru Stiinta si Tehnologie (FCT), Portugalia, "Impact on Plates of Composite Materials Protected with Polymeric Mortar", 2002-2004- Facultatea de Stiinta si Tehnologie, Departamentul de Inginerie Civila, Universitatea Nova din Lisabona, Portugalia. Perioada de implementare: 2002-2004.

6. Responsabilitati academice complementare (selectie)

- Membru in Consiliul National al Cercetarii Stiintifice (CNCS), Consiliul general, (2020-2024) <https://www.cncs-nrc.ro/membri/> ;
- Presedintele Comisiei de Stiinte Ingineresti din cadrul CNCS, (2020-2021);
- Membru in Consiliul National al Cercetarii Stiintifice (CNCS), Panelul Stiinte Ingineresti (2012-2013);
- Membru in Consiliul National de Atestare a Titlurilor si Diplomelor si Certificatelor Universitare (CNATDCU), Comisia de Specialitate Inginerie Civila, (2011-2012; 2016-2019);
- Membru in Consiliul Cercetarii al Universitatii Tehnice din Cluj-Napoca (2012-2020);

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- Coordonatorul domeniilor Constructii-Instalatii si Arhitectura din cadrul Consiliului Studiilor Universitare de Doctorat (**CSUD**) al Universitatii Tehnice din Cluj-Napoca (2012-2016);
- Membru in Consiliul Studiilor Universitare de Doctorat (**CSUD**) al Universitatii Tehnice de Constructii Bucuresti (2016-2020; 2020-2024; 2024-);
- Membru/Presedinte comisii de sustinere a tezelor de doctorat, abilitare, comisii concurs (Prof/Conf): (40+) - Romania (UTCN, UPT, UTCB, UTGAI), Brazilia (University of Ouro Preto), Malaysia (University of Malaya), Vietnam (Ho Chi Minh City University).
- Coordonatorul programului de master cu dubla diploma in Inginerie Structurala (Universitatea Tehnica din Cluj-Napoca, Universitatea Bergamo, Italia). <https://ls-ie.unibg.it/it/opportunita-e-studi-allestero/doppio-titolo-double-degree> (2019-).
- Membru in Biroul Consiliului Facultatii de Constructii, Universitatea Tehnica din Cluj-Napoca, (2011-2020);
- Membru in Consiliul Facultatii de Constructii, Universitatea Tehnica din Cluj-Napoca, (2011-2020);
- Expert evaluator UEFISCDI (2007-)
- Ofiter stiintific CNCS (2020-)
- Editor sef al revistei Acta Technica Napocensis: Civil Engineering & Architecture (2011-2020);
- Membru in colectivul editorial:
 - Open Civil Engineering Journal, Bentham Science (2007-)
 - International Journal of Earthquake and Impact Engineering, InderScience Publisher (2014-);
 - Journal of Science and Technology in Civil Engineering, National University of Vietnam (2020-);
 - Advances in Architectural Engineering Journal, Korea (2021-);
 - International Conference on Computational Structures Technology, Civil Comp Press, UK; (2012-).
 - “The International Colloquium on Stability and Ductility of Steel Structures”, SDSS (2016, 2019, 2022, 2025);
- Evaluator pentru Young Researcher Best Paper Competition “The International Conference on Civil, Structural and Environmental Engineering, Civil Comp Press, UK;
- Initiator/Organizator/Chairman International Conferences for PhD Students in Civil Engineering and Architecture, Universitatea Tehnica din Cluj-Napoca, , (2012,2014)
- Referent stiintific (selectie): Computers & Structures (Elsevier); Advances in Engineering Software (Elsevier); Finite Elements in Analysis and Design (Elsevier); Engineering Structures (Elsevier); Journal of Constructional Steel Research (Elsevier); Thin-Walled Structures (Elsevier); Composite Structures (Elsevier); Journal of Building Engineering (Elsevier).

Prof. Cosmin G Chiorean

Cluj-Napoca, Martie, 2024

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1. Personal information

Name and surname: Chiorean Cosmin-Gruia
Date and place of birth: 11 October 1971, Cluj-Napoca, Romania
Present academic position: Full Professor, Technical University of Cluj-Napoca
Current address: 28 Memorandumului Str., 400114, Cluj-Napoca, Romania
Phone, e-mail: +40740934581, cosmin.chiorean@mecon.utcluj.ro
Web: www.cosminchiorean.com
Web of Science: <https://www.webofscience.com/wos/author/record/48117309>
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=6508271760>
Google Scholar: <https://scholar.google.ro/citations?user=f6Oez7EAAAAJ&hl=en>



2. Education

2013 Habilitation in civil engineering, Technical University of Construction, Bucharest.
2002 Postdoctoral fellow, New University of Lisbon,, Lisbon, Portugal (2002-2004)
2001 PhD in civil engineering, Technical University of Cluj-Napoca.
1996 MSc in civil engineering, Technical University of Cluj-Napoca.
1999 Babes-Bolyai University, Faculty of Mathematics, Computer Science Section, Cluj-Napoca
1995 Technical University of Cluj-Napoca, Faculty of Civil Engineering, Cluj-Napoca
1990 High School “Emil Racovita”, Mathematics-Physics Section, Cluj-Napoca

3. Professional experience

2009-present Full professor, (2009-), Technical University of Cluj-Napoca, Faculty of Civil Engineering: Scientific research, PhD supervisor in the field of civil engineering (numerical modeling and mathematical formulations in advance analysis of structures), Didactic activities (Dynamic and Stability of Structures, Numerical Methods), academic management, academic and institutional assessment. Academic responsible of double-degree master-of-science study program in structural engineering (University of Bergamo, Italy).
2016-2020 Scientific researcher I - Babes-Bolyai university, Faculty of Science and Environmental Engineering, within the research project: “Intelligent systems on the safety of the population through the control and reduction of radon exposure correlated with the optimization of housing energetic efficiency from important urban areas from Romania” - *SMART-RAD-EN* contract no: 22/01.09.2016, code project: ID P_37_229, cod MySmsis: 103427 <http://www.smartradon.ro/echipa>
2012-present Head of research group: “*Computational Modeling and Advance Simulation in Structural and Geotechnical Engineering*” <https://www.cosminchiorean.com/CMASSGE.pdf>
2011-2020 Head of Structural Mechanics Department, Faculty of Civil Engineering, Technical University of Cluj-Napoca.
2007-present Researcher software developer SC GeoStru Software (www.geostru.eu)- Software development in the field of geotechnical and structural engineering (GFAS-Finite element systems for geotechnical applications; RSLIII-2D-Local Seismic Response of Soils and Structures) <https://www.geostru.eu/product-category/software-en/geotechnical-software/>
2002-2004 Post-doctoral fellowship, Faculty of Science and Technology, Department of Civil Engineering, New University of Lisbon, Portugal (Advanced studies concerning the application of the finite element methods in ballistic impact of composite materials).
1996-2001 PhD fellowship, Technical University of Cluj-Napoca, Advanced nonlinear analysis of structures (nonlinear static and dynamic analysis of structures, finite element method, numerical methods, and applied informatics).

4. Ten selected publications

11. **Chiorean C.G.**, Computational Issues in Biaxial Bending Capacity Assessment of RC and Composite Cross-Sections Exposed to Fire, *Computers & Structures*, Elsevier, 2024 (Q1-WoS; Revised Manuscript CAS-D-24-00120R1).
12. **Chiorean C.G.**, Passera, D., Ferrari R., Rizzi, E., An Implementation for 2nd order M-N-Coupling and Geometric Stiffness Adaptation in Tapered Beam-Column Elements, *Engineering Structures*, Elsevier, 225, 111241, 2020 (Q1-WoS).
13. **Chiorean, C.G.**, Second-order Flexibility-Based Model for Nonlinear Inelastic Analysis of 3D Semi-Rigid Steel Frameworks, *Engineering Structures*, Elsevier, 136: 547-579, 2017 (Q1-WoS).
14. **Chiorean, C.G.**, Marchis, I.V., A Second-Order Flexibility-Based Model for Steel Frames of Tapered Members, *Journal of Constructional Steel Research*, Elsevier, 132: 43-71, 2017 (Q1-WoS).
15. **Chiorean C.G.**, Buru S. Practical Nonlinear Inelastic Analysis Method of Composite Steel-Concrete Beams with Partial Composite Action, *Engineering Structures*, Elsevier, 134:74-106, 2017 (Q1-WoS)
16. **Chiorean, C.G.**, A Computer Method for Nonlinear Inelastic Analysis of 3D Composite Steel-Concrete Frame Structures, *Engineering Structures*, Elsevier, 57: 125-152, 2013 (Q1-WoS).
17. **Chiorean, C.G.**, Computerised Interaction Diagrams and Moment Capacity Contours for Composite Steel-Concrete Cross-Sections, *Engineering Structures*, Elsevier, 32(11): 3734-57, 2010 (Q1-WoS).
18. **Chiorean, C.G.**, A Computer Method for Nonlinear Inelastic Analysis of 3D Semi-Rigid Steel Frameworks, *Engineering Structures*, Elsevier, 31(12): 3016-33, 2009 (Q1-WoS).
19. **Chiorean, C.G.**, Barsan, G.M., Large Deflection Distributed Plasticity Analysis of 3D Steel Frameworks, *Computers & Structures*, Elsevier, 83 (19-20):1555-71, 2005 (Q1-WoS).
Silva, M.A.G., Cismasiu, C., **Chiorean, C.G.**, Numerical Simulation of Ballistic Impact on Composite Laminates, *International Journal of Impact Engineering*, Elsevier, 31 (3):289-306, 2005 (Q1-WoS).

5. Research grants (selection)

1. The grant POC-A1-A1.1.4-E-2015 (P-37-229) financed by ANCSI "Smart Systems for Public Safety through Control and Mitigation of Residential Radon linked with Energy Efficiency Optimization of Buildings in Romanian Major Urban Agglomerations (director Prof. Carlos Sainz Univ. Cantabria, Spain – Babes-Bolyai University) – Coordinator of task: Advanced numerical models configuration for prediction assisted by experiment, numerical simulations. 2016-2020. <http://www.smartradon.ro/echipa>
2. The grant PNII-IDEI/193/2008 (Exploratory research projects) finance by CNCISIS-UEFISCDI "Design and seismic performance evaluation of spatial frame structures using advanced nonlinear static analysis" 2009-2012. <http://users.utcluj.ro/~ccosmin/RESEARCHPROJECT.htm>
3. The grant POCTI/36055/ECM/2000 financed by Foundation for Science and Technology, (FCT), Portugal, "Aplicacao de Algoritmos Geneticos e Redes Neurais a Optimizacao e Fiabilidade Estrutural", 2004.- New University of Lisbon, Faculty of Science and Technology, Department of Civil Engineering, New University of Lisbon, Portugal, 2004.
4. The grant POCTI 43228/EME/2001- financed by Foundation for Science and Technology, (FCT), Portugal, "Impact on Plates of Composite Materials Protected with Polymeric Mortar", 2002-2004- Faculty of Science and Technology, Department of Civil Engineering, New University of Lisbon, Portugal: 2002-2004.

6. Synergistic activities (selection)

Member of National Council for Attestation of University Titles, Diplomas and Certificates, Civil Engineering Panel, 2011-2012, (2011-2012; 2016-2019); Member of National Research Council (CNCS), 2020-2024; Member of National Research Council (CNCS), Engineering Science Panel (2012-2013); Member of Research Council and CSUD (Council of University Doctoral Studies) from Technical University of Cluj-Napoca (2012-2016) and Technical University of Constructions Bucharest (2016-2020; 2020-2024;2024-); Editor in chief of the journal Acta Technica Napocensis: Civil Engineering & Architecture (2011-2020); Editorial board member of: Open Civil Engineering Journal, Bentham Science; International Journal of Earthquake and Impact Engineering, InderScience Publisher; Journal of Science and Technology in Civil Engineering, National University of Vietnam; Advances in Architectural Engineering Journal, Korea; Editorial board member of the International Conference on Computational Structures Technology (CST), (2012-2020), Civil Comp Press, UK; Member of the scientific committee of "The international colloquium on stability and ductility of steel structures

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– SDSS 2016, 2019, 2022, 2025”; Reviewer for the Young Researcher Best Paper Competition in the framework of “The International Conference on Civil, Structural and Environmental Engineering, Civil Comp Press, UK; Organizer/Chairman International Conferences for PhD Students in Civil Engineering and Architecture, (2012,2014); Reviewer for international journals (selection): Computers & Structures (Elsevier); Advances in Engineering Software (Elsevier); Finite Elements in Analysis and Design (Elsevier); Engineering Structures (Elsevier); Journal of Constructional Steel Research (Elsevier); Composite Structures (Elsevier);

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