

CURRICULUM VITAE

Prof.dr.ing. Cosmin-Gruia CHIOREAN

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1. Informatii personale

Numele si prenumele: Chiorean Cosmin-Gruia

Data si locul nasterii: 11 Octombrie 1971, Cluj-Napoca, Romania

Starea Civila: Casatorit (cu Laura-Elena), 1 copil (Alexandru-Gruia)

Pozitia academica ocupata in prezent: Profesor Universitar, Univ. Tehnica din Cluj-Napoca

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2. Educatie

2013-Abilitat (Conducator de doctorat) in domeniul inginerie civila, Universitatea Tehnica de Constructii, Bucuresti.

2002-2004- Postdoctorat, Facultatea de Stiinta si Tehnologie, Univ. din Lisabona, Portugalia.

2001- Doctor in inginerie civila, Univ. Tehnica din Cluj-Napoca.

1997- Master in inginerie civila, Univ. Tehnica din Cluj-Napoca, Facultatea de Constructii.

1999- Universitatea Babes-Bolyai, Facultatea de Matematica, Sectia Informatica.

1995- Universitatea Tehnica din Cluj-Napoca, Facultatea de Constructii.

1990- Liceul Emil Racovita, Matematica-Fizica, Cluj-Napoca.

3. Experienta profesionala

- Profesor universitar, (2009-), Universitatea Tehnica din Cluj-Napoca, Facultatea de Constructii
- Conferentiar universitar (2006-2009), Universitatea Tehnica din Cluj-Napoca, Facultatea de Constructii
- Cercetator bursier (postdoctorat) (2002-2004), Facultatea de Stiinta si Tehnologie, Departamentul de Inginerie Civila, Universitatea Nova din Lisabona, Portugalia.
- Sef de lucrari (2002-2006) Universitatea Tehnica din Cluj-Napoca, Facultatea de Constructii
- Asistent universitar (2000-2002), Universitatea Tehnica din Cluj-Napoca, Facultatea de Constructii.
- Doctorand cu frecventa (bursier) (1996-2000), Universitatea Tehnica din Cluj-Napoca, Facultatea de Constructii.
- Inginer proiectant (1995-2000), S.C. Consort Constructii SRL, Cluj-Napoca, Romania

4. Zece publicatii selectionate

1. **Chiorean, C.G.**, Buru S.M., Advanced Nonlinear Inelastic Analysis of 3D Composite Steel Concrete Frameworks with Partial Shear Connection, "Proceedings of the Twelfth International Conference on Computational Structures Technology", Civil Comp Press,

- UK, paper 15, 2014, selected for publication in Special Issue of *Computers & Structures*, Elsevier Science Publisher, UK, 2015 <http://dx.doi.org/10.4203/ccp.106.15>.
2. **Chiorean C.G.**, Marchis I.V., Buru M., A Computer Method for Design and M-N- Φ Analysis of Prestressed RC Cross-Sections, *Journal of Structural Engineering* (CSIR-SERC), Vol. 42, No.1 (April), pp. 64-77, 2015. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84930341312&partnerID=MN8TOARS>.
 3. **Chiorean, C.G.**, A Computer Method for Nonlinear Inelastic Analysis of 3D Composite Steel-Concrete Frame Structures, *Engineering Structures*, 57, Elsevier Science Publisher, UK, 2013. <http://dx.doi.org/10.1016/j.engstruct.2013.09.025>
 4. **Chiorean, C.G.**, A Computer Method for Rapid Design of Composite Steel-concrete Cross-sections, *Open Civil Engineering Journal*, 7(1), pp. 1-17 Bentham Science Publisher, 2013 <http://dx.doi.org/10.2174/1874149501307010001>
 5. **Chiorean, C.G.**, Computerised Interaction Diagrams and Moment Capacity Contours for Composite Steel-Concrete Cross-Sections, *Engineering Structures*, 32(11), pp. 3734-57, Elsevier Science Publisher, UK, 2010. <http://dx.doi.org/10.1016/j.engstruct.2010.08.019>.
 6. **Chiorean, C.G.**, A Computer Method for Nonlinear Inelastic Analysis of 3D Semi-Rigid Steel Frameworks, *Engineering Structures*, 31(12), pp. 3016-33, Elsevier Science Publisher, Oxford, UK, 2009. <http://dx.doi.org/10.1016/j.engstruct.2009.08.003>
 7. **Chiorean, C.G.**, Barsan, G.M., Large Deflection Distributed Plasticity Analysis of 3D Steel Frameworks, *Computers & Structures*, 83 (19-20), pp. 1555-71, Elsevier Science Publisher, UK, 2005. <http://dx.doi.org/10.1016/j.compstruc.2005.02.011>
 8. Silva, M.G., Cismasiu, C., **Chiorean, C.G.**, Numerical Simulation of Ballistic Impact on Composite Laminates, *International Journal of Impact Engineering*, 31 (3), pp. 289-306, Elsevier Science Publisher, UK, 2005. <http://dx.doi.org/10.1016/j.ijimpeng.2004.01.011>.
 9. Barsan, G.M., **Chiorean, C.G.** Computer Program for Large Deflection Elasto-Plastic Analysis of Semi-Rigid Steel Frameworks, *Computers & Structures*, 72(6), pp. 699-711, Pergamon-Elsevier Science Publisher, USA, 1999. [http://dx.doi.org/10.1016/S0045-7949\(98\)00310-1](http://dx.doi.org/10.1016/S0045-7949(98)00310-1).
 10. **Chiorean C.G.**, A fast incremental-iterative procedure for ultimate strength analysis of composite cross-sections of arbitrary shape, *WIT Transactions on Modelling and Simulation*, WIT Press Publisher, 2011. <http://dx.doi.org/10.2495/CMEM110321>.

5. Domenii de cercetare de interes

Aplicarea metodelor numerice in analiza structurala; Analiza statica si dinamica neliniara a structurilor; Analiza pushover pentru evaluarea performantelor seismice a structurilor; Metoda Elementelor Finite cu aplicabilitate in ingineria geotehnica; Impact balistic; Materiale compozite;

6. Proiecte de cercetare pe baza de contract/grant

1. Grantul **POCTI/36055/ECM/2000** finantat de Fundatia pentru Stiinta si Tehnologie (FCT), Portugalia, "*Aplicacao de Algoritmos Geneticos e Redes Neurais a Optimizacao e Fiabilidade Estrutural*", 2004.- **Univ. Nova din Lisabona**, coordonator Prof. J.R. Almeida, Facultatea de Stiinta si Tehnologie, Departamentul de Inginerie Civila, Universitatea Nova din Lisabona, Portugalia. 2004.
2. 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-** coordonator prof. MAG Silva , Facultatea de Stiinta si Tehnologie, Departamentul de Inginerie Civila, Universitatea Nova din Lisabona, Portugalia. www.dec.fct.unl.pt/projectos/impacto, 2002.
3. Grantul **POCTI No. 36019/99** finantat de Fundatia pentru Stiinta si Tehnologie (FCT), Portugalia -"*Aplication of Pushover Analysis on Reinforced Concrete Bridge Model*"

- 2003-2004, (coordonator prof. MAG Silva), UNIC-Centro de Investigacao em Construcção e Estruturas Universidade Nova de Lisboa, Facultatea de Stiinta si Tehnologie, Departamentul de Inginerie Civila, Universitatea Nova din Lisabona, Portugalia. <http://www.dec.fct.unl.pt/UNIC/index.html>.
4. Contractul “Software development for geotechnical engineering” nr. 4/02.11.2007, “GFAS-Finite element systems for geotechnical applications” (Beneficiar S..C. Geostru Software, Italia (www.geostru.com), 2007-2010.
 5. Grantul **PNII-IDEI/193/2008** finantat de CNCSIS “ Proiectarea si evaluarea performantelor seismice a structurilor in cadre spatiale prin analiza statica neliniara avansata”, 2009-2012. <http://users.utcluj.ro/~ccosmin/RESEARCHPROJECT.htm>

7. Responsabilitati academice complementare (selectie)

- Membru in Consiliul National de Atestare a Titlurilor Diplomelor si Certificatelor Universitare, 2011-2012.
- Membru in Consiliul National al Cercetarii Stiintifice ([CNCS](http://www.cnrs.ro)), Panelul Stiinte Ingineresti (2012-2013).
- Director al departamentului [de Mecanica Constructiilor](#) din cadrul Facultatii de Constructii din Cluj-Napoca (2011-2015).
- Editor sef al revistei [Acta Technica Napocensis: Civil Engineering & Architecture](#).
- Membru in Consiliul Cercetarii si al CSUD (Consiliul Studiilor Universitare de Doctorat) al Universitatii Tehnice din Cluj-Napoca. <http://research.utcluj.ro/index.php/membri-consiliului-de-cercetare.html>
- Membru in colectivul editorial al revistei [Open Civil Engineering Journal](#), Bentham Science Publisher;
- Membru in colectivul editorial *International Conference on Computational Structures Technology (CST)*, 2012-2014-2015, Civil Comp Press, Stirlingshire, UK, <http://www.civil-comp.com/conf/>
- Editor si Chairman pentru *International Conference Series for PhD Students in Civil Engineering and Architecture*, 2012-2014, organizata de catre Universitatea Tehnica din Cluj-Napoca. <http://sens-group.ro/ce2012/>; <http://sens-group.ro/ce2014/>
- Membru Technical Committee TC103 (Numerical Methods in Geomechanics), [International Society for Soil Mechanics and Geotechnical Engineering](#).
- Coordonator teze de doctorat (8 teze de doctorat aflate in diferite stadii de finalizare), Referent stiintific la peste 20 de teze de doctorat, coordinator stiintific la peste 30 de teze de masterat.
- Referent stiintific pentru reviste de specialitate nationale si international (selectie): *Computers & Structures* (Elsevier); *Advances in Engineering Software* (Elsevier); *Engineering Structures* (Elsevier); *Composite Structures* (Elsevier); *Steel and Composite Structures* (Techno Press), *Structures and Building* (Institution of Civil Engineering)

Prof. Cosmin G Chiorean

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Prof. Cosmin G. CHIOREAN

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1. Personal information

Name and surname: Chiorean Cosmin-Gruia

Marital status: Married (with Laura-Elena), one child (Alexandru-Gruia)

Date and place of birth: 11 October 1971, Cluj-Napoca, Romania

Present academic position: Professor at Technical University of Cluj-Napoca, Romania

Current address: 28 Memorandumului Str., 400114, Cluj-Napoca, Romania

Phone number, e-mail address: +40740934581, cosmin.chiorean at mecon.utcluj.ro

Web: <http://www.cosminchiorean.com>



2. Education

2013- Habilitation in Civil Engineering, Technical University of Construction, Bucharest, Romania

2002-2004 Postdoctoral Fellow, Faculty of Science and Engineering, New Univ. of Lisbon, Portugal

2001 PhD in Civil Engineering, Technical University of Cluj-Napoca

1997 MSc in Civil Engineering, Technical University of Cluj-Napoca

1999 Babes-Bolyai University, Faculty of Mathematics, Computer Science Section

1995 Technical University of Cluj-Napoca, Faculty of Civil Engineering

1990 High School "Emil Racovita", Mathematics-Physics Section, Cluj-Napoca

3. Professional experience

- Professor, (2009-), Technical University of Cluj-Napoca, Faculty of Civil Engineering
- Associate professor (2006-2009), Technical University of Cluj-Napoca, Faculty of Civil Engineering
- Postdoctoral fellow (2002-2004), Faculty of Science and Engineering, New Univ. of Lisbon, Portugal
- Lecturer (2002-2006) Technical University of Cluj-Napoca, Faculty of Civil Engineering
- Assitant professor (2000-2002), Technical University of Cluj-Napoca, Faculty of Civil Engineering
- Teaching assistant/PhD student (1996-2000) Technical University of Cluj-Napoca, Faculty of Civil Engineering.
- Structural engineer (1995-2000), S.C. Consort Cosntructii SRL, Cluj-Napoca.

4. Ten selected publications

1. **Chiorean, C.G.**, Buru S.M., Advanced Nonlinear Inelastic Analysis of 3D Composite Steel Concrete Frameworks with Partial Shear Connection, "Proceedings of the Twelfth International Conference on Computational Structures Technology", Civil Comp Press,

- UK, paper 15, 2014, selected for publication in Special Issue of *Computers & Structures*, Elsevier Science Publisher, UK, 2015 <http://dx.doi.org/10.4203/ccp.106.15>.
2. **Chiorean C.G.**, Marchis I.V., Buru M., A Computer Method for Design and M-N- Φ Analysis of Prestressed RC Cross-Sections, *Journal of Structural Engineering* (CSIR-SERC), Vol. 42, No.1 (April), pp. 64-77, 2015. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84930341312&partnerID=MN8TOARS>.
 3. **Chiorean, C.G.**, A Computer Method for Nonlinear Inelastic Analysis of 3D Composite Steel-Concrete Frame Structures, *Engineering Structures*, 57, Elsevier Science Publisher, UK, 2013. <http://dx.doi.org/10.1016/j.engstruct.2013.09.025>
 4. **Chiorean, C.G.**, A Computer Method for Rapid Design of Composite Steel-concrete Cross-sections, *Open Civil Engineering Journal*, 7(1), pp. 1-17 Bentham Science Publisher, 2013 <http://dx.doi.org/10.2174/1874149501307010001>
 5. **Chiorean, C.G.**, Computerised Interaction Diagrams and Moment Capacity Contours for Composite Steel-Concrete Cross-Sections, *Engineering Structures*, 32(11), pp. 3734-57, Elsevier Science Publisher, UK, 2010. <http://dx.doi.org/10.1016/j.engstruct.2010.08.019>.
 6. **Chiorean, C.G.**, A Computer Method for Nonlinear Inelastic Analysis of 3D Semi-Rigid Steel Frameworks, *Engineering Structures*, 31(12), pp. 3016-33, Elsevier Science Publisher, Oxford, UK, 2009. <http://dx.doi.org/10.1016/j.engstruct.2009.08.003>
 7. **Chiorean, C.G.**, Barsan, G.M., Large Deflection Distributed Plasticity Analysis of 3D Steel Frameworks, *Computers & Structures*, 83 (19-20), pp. 1555-71, Elsevier Science Publisher, UK, 2005. <http://dx.doi.org/10.1016/j.compstruc.2005.02.011>
 8. Silva, M.G., Cismasiu, C., **Chiorean, C.G.**, Numerical Simulation of Ballistic Impact on Composite Laminates, *International Journal of Impact Engineering*, 31 (3), pp. 289-306, Elsevier Science Publisher, UK, 2005. <http://dx.doi.org/10.1016/j.ijimpeng.2004.01.011>.
 9. Barsan, G.M., **Chiorean, C.G.** Computer Program for Large Deflection Elasto-Plastic Analysis of Semi-Rigid Steel Frameworks, *Computers & Structures*, 72(6), pp. 699-711, Pergamon-Elsevier Science Publisher, USA, 1999. [http://dx.doi.org/10.1016/S0045-7949\(98\)00310-1](http://dx.doi.org/10.1016/S0045-7949(98)00310-1).
 10. **Chiorean C.G.**, A fast incremental-iterative procedure for ultimate strength analysis of composite cross-sections of arbitrary shape, *WIT Transactions on Modelling and Simulation*, WIT Press Publisher, 2011. <http://dx.doi.org/10.2495/CMEM110321>.

5. Research interests

The research and professional interests focus on improving the structural computational methods for design of civil structures. My research includes both computational and experimental techniques with emphasis on the development and application of *advanced nonlinear analysis of structural limit states, push-over analysis for seismic performance evaluation of structures, finite element simulation of composite materials* subjected to extreme loads such as *ballistic impact* and explosions, design and behavior of *composite steel-concrete structures*, application of *FEM* in *geotechnical engineering*.

6. Research contracts (selections)

- **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.-**Member/Post Doctoral researcher**, New Univ. Of Lisbon, Portugal, principal investigator, Prof. J.R. Almeida, Faculty of Science and Technology, Departmanet of Civil Engineering, 2004.

- Grantul **POCTI 43228/EME/2001**- financed by Foundation for Science and Technology (FCT), Portugal, "*Impact on Plates of Composite Materials Protected with Polymeric Mortar*", **Member/Post Doctoral researcher** ,New Univ. Of Lisbon, Portugal **2002-2004**-principal investigator, prof. MAG Silva , Faculty of Science and Technology, Department of Civil Engineering, 2004. www2.dec.fct.unl.pt/projectos/impacto, 2002.
- Contract "**Software development for geotechnical engineering**" nr. 4/02.11.2007, "*GFAS-Finite element systems for geotechnical applications*" (**Principal investigator**) S..C. Geostru Software, Italia (www.geostru.com), 2007-2010.
- Grantul **PNII-IDEI/193/2008** financed by CNCSIS "Design and seismic performance evaluation of 3D frame structures using advanced nonlinear static analysis method", 2009-2012. (**Principal investigator**).

7. Synergistic activities (selection)

- Member of *National Research Council* (CNCS), Engineering Science Panel (2012-2013).
- Head of Structural Mechanics Department from Technical University of Cluj-Napoca (2011-2015).
- Editor in chief of the journal: *Acta Technica Napocensis: Civil Engineering & Architecture* (<http://constructii.utcluj.ro/ActaCivilEng/>)
- Member of Research Council and CSUD (Consiliul Studiilor Universitare de Doctorat) from Technical University of Cluj-Napoca. <http://research.utcluj.ro/index.php/membri-consiliului-de-cercetare.html>
- Editorial board member of the journal: *Open Civil Engineering Journal*, Bentham Science Publisher; <http://www.benthamscience.com/open/tociej/index.htm>
- Editorial board member of *International Conference on Computational Structures Technology (CST)*, 2012-2014-2015, Civil Comp Press, Stirlingshire, UK, <http://www.civil-comp.com/conf/>
- Editor and Chairman for *International Conference Series for PhD Students in Civil Engineering and Architecture*, 2012-2014, organized by Technical University of Cluj-Napoca. <http://sens-group.ro/ce2012/>; <http://sens-group.ro/ce2014/>
- Member of the Technical Committee TC103 (Numerical Methods in Geomechanics), *International Society for Soil Mechanics and Geotechnical Engineering*.
- PhD supervisor (8 PhD theses under development), Reviewer for over 20 PhD theses, coordinator of over 30 MSc theses.
- Reviewer for several international journals, including: *Computers & Structures* (Elsevier); *Advances in Engineering Software* (Elsevier); *Engineering Structures* (Elsevier); *Composite Structures* (Elsevier); *Steel and Composite Structures* (Techno Press); *Structures and Building* (Institution of Civil Engineering).

Prof. Cosmin G Chiorean

Cluj-Napoca, November 2015