

LISTA DE LUCRARI PUBLICATE

Dr.ing. Cristian Vasile ARION, Universitatea Tehnica de Constructii Bucuresti

A. Doctorat

Arion, C., 2003. "Zonarea seismică pentru condiții de teren și sursele seismice specifice României". Teza de Doctorat, UTCB, București, 181p.

Referate de Doctorat

A.1 Arion, C., 1999. Utilizarea tehnologiilor GIS pentru microzonarea și macrozonarea seismică. Referat de doctorat, *Universitatea Tehnica de Constructii Bucuresti*, 15 p.

A.2 Arion, C., 1999. Risc seismic. Studiu de caz: municipiul Bucuresti Referat de doctorat, *Universitatea Tehnica de Constructii Bucuresti*, 52 p.

B. Articole

(Ba) Lucrari publicate in reviste de specialitate

Ba1. In Romania

- 1.1 Lungu, D., Aldea, A., Demetriu, S., **Arion, C.**, 2000. Evaluarea riscului seismic pentru fondul construit din Bucuresti, *Gazeta AICR*, Anul XI, Nr.41-42, Mai, p.3-25.
- 1.2 Lungu, D., Aldea, A., Demetriu, S., **Arion, C.**, 2000. Evaluarea riscului seismic pentru fondul construit din Bucuresti, *Buletinul AICPS*, No 2. p.14- 36.
- 1.3 Vacareanu R., Lungu D., Aldea A., **Arion, C.**, 2002. Probabilistic Risk Assessment of Current Buildings, *Buletinul Stiintific al UTCB*, nr. 2, p.1-11
- 1.4 A.Aldea, C.Arion, R. Văcăreanu, D.Lungu 2003. Evaluarea vulnerabilității la cutremur a clădirilor. Metode de calcul și priorități de consolidare. Assessment of Seismic Vulnerability of Buildings. Methods for Analysis and Strengthening Priorities. *Buletinul AICPS*, No 1/2003 p.14- 25.
- 1.5 Lungu, D., Aldea, A., **Arion, C.**, Vacareanu, R., 2004. WP1 -European Distinctive Features, Inventory Database and Typology, *Buletinul UTCB Nr.2/2003*, p. 12-42
- 1.6 Vacareanu, R., Lungu, D., Aldea, A., **Arion, C.**, 2004. WP7 Handbook - Seismic Risk Scenarios, *Buletinul UTCB Nr.2/2003*, p. 97-117
- 1.7 **Arion, C.**, Petrescu, F., Lungu, D., Aldea, A., 2004. The GIS Infrastructure and the RISK-UE Project, *Buletinul UTCB Nr.2/2003*, p. 76-96
- 1.8 Lungu D., Văcăreanu R., Aldea A., **Arion C.**, 2006. Codul de proiectare seismică P100 -01. Prevederi de proiectare pentru clădiri Cap. 3, Acțiunea seismică, *Buletinul AICPS*, Asociația Inginerilor Constructori Proiectanți de Structuri, No 4/2006, Partea 1, p. 30-80
- 1.9 Lungu, D., Aldea A., **Arion C.**, Vacareanu R., 2007. Cutremure istorice majore în România, *Revista Monumentelor Istorice*, Nr. LXXVI, 2007, Institutul Național al Monumentelor Istorice, București, 2007, p.92-116
- 1.10 **Arion C.**, M. Tamura, E. Calarasu, C. Neagu, Investigatii geotehnice in situ utilizate pentru proiectarea seismică a clădirilor *Revista CONSTRUCTII*, nr. 1 / 2008. ISSN 1221 – 2709; p. 61-69.
- 1.11 Craifaleanu I. G., D. Lungu, R. Vacareanu, O. Anicai, A. Aldea, **Arion C.**, Dezvoltarea unei platforme software GIS pentru evaluarea riscului seismic in Romania, 39-46 *Revista CONSTRUCTII*, nr. 2 / 2008. ISSN 1221 - 2709
- 1.12 Lungu D., Aldea A., **Arion C.**, Major Historical Earthquakes, *Transsylvania Nostra*, Built Heritage, Year 11, ISSUE 5-6, No. 1-2/2008, Cluj, p. 6-31 **ISSN 1843-5631**.
- 1.13 Bala A., **Arion C.**, Aldea A., 2013. In situ borehole measurements and laboratory measurements as primary tools for the assessment of the seismic site effects, *Romanian Reports in Physics*, Vol. 65, No. 1, P. 285–298, 2013
- 1.14 Văcăreanu, R., Lungu, D., Aldea, A., **Arion, C.**, Neagu, C., Găman, F., Petrescu, F., Aldea, M., 2013 Expected Direct Seismic Losses Assessment Using GIS. Case Study for Iași Municipality, *Mathematical Modelling in Civil Engineering* 9 (3), 8-14
- 1.15 **Arion C.**, Calarasu E., Neagu C., 2015. Evaluation of Bucharest soil liquefaction potential, *Mathematical Modelling in Civil Engineering*, volume 11, no.1, 5-12.
- 1.16 ANDREI BĂLĂ, DRAGOȘ TOMA-DANILA, CRISTIAN ARION, 2024 Shear-wave velocity database – a key input for seismic site amplification models in Bucharest, capital of Romania *Rev. Roum. GÉOPHYSIQUE*, 66, p. 19–34, 2022–2023, București <https://doi.org/10.5281/rrg.2023.66.2>

Ba2. In Strainatate

- 1.17 **Arion, C.**, 1999. Soil amplification factors, *Bulletin of the International Institute of Seismology and Earthquake Engineering IISSE*, Tsukuba, Japan, Vol.35, p.307- 320.
- 1.18 Lungu, D., Aldea, A., **Arion, C.**, Demetriu, S., Cornea, T., 2000. Microzonage Sismique de la ville de Bucarest - Roumanie, *Cahier Technique de l'Association Française du Génie Parasismique*, No.20, p.31-63
- 1.19 Vacareanu, R., Aldea, A., **Arion, C.**, Lungu, D., Aug. 2003. "Toward the seismic microzonation of Bucarest-city, Romania: The National Center for Seismic Risk Reduction and the JICA Project", *Research Reports on Earthquake Engineering*, No. 87, Tokyo Institute of Technology, Jishin Kogaku Kenkyu Repoto, Japan, p.29-33.
- 1.20 Aldea, A., Lungu, D., **Arion, C.**, 2003. "Toward the seismic microzonation of Bucarest-city, Romania: Seismic microzonation of Bucharest based on existing seismic data", *Research Reports on Earthquake Engineering*, No. 87, Tokyo Institute of Technology, Japan, p.21-28.
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- 1.24 Pavel, F., Văcăreanu, R., Aldea, A., **Arion, C.** (2013). Source effects on the spectral characteristics of ground motions recorded in Bucharest area during Vrancea earthquakes of 1986 and 1990. *Journal of Earthquake Engineering*, DOI: 10.1080/13632469.2013.830997.
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- 1.30 Bala, Andrei; Toma-Danila, Dragos; Arion, Cristian (2021), "Shear-wave velocity database for Bucharest", *Mendeley Data*, V2, doi: 10.17632/jncnc6fng9.2
- 1.31 Georgescu, D.; Vacareanu, R.; Aldea, A.; Apostu, A.; Arion, C.; Girboveanu, A. Assessment of the Sustainability of Concrete by Ensuring Performance during Structure Service Life. *Sustainability* 2022, 14, 617. <https://doi.org/10.3390/su14020617>
- 1.32 Aldea, A., Văcăreanu, R., Pavel, F., & Arion, C. (2023). Analyse probabiliste de l'aléa sismique – le cas de la Roumanie. *Academic Journal of Civil Engineering*, 41(3), 39-49. <https://doi.org/10.26168/ajce.41.3.5>
- 1.33 Pavel, F., Vacareanu, R., Aldea, A., & Arion, C. (2024). Vertical Elastic Acceleration Response Spectra for Vrancea Intermediate-Depth Earthquakes. *Buildings*, 14(4), 906. <https://doi.org/10.3390/buildings14040906>
- 1.34 Arion, C.; Vacareanu, R.; Aldea, A.; Pavel, F. Assessment of Frost Depth and Frost Heave in Romania. *Appl. Sci.* 2024, 14, 3086. <https://doi.org/10.3390/app14073086>
- 1.35 Bala, A., Gheablău, C. ., & Arion, C. . (2025). Ground motion amplifications for Bucharest based on 3D geological model and assigned geophysical properties. *Annals of Geophysics*, 68(3), NS331. <https://doi.org/10.4401/ag-9267>

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Bb1. Nationale

- 1.36 Lungu, D., Cornea, T., Aldea, A., **Arion, C.**, 2001. Risc, vulnerabilitate si hazard seismic generate de sursa Vrancea in Romania, *A Doua Conferinta Nationala de Inginerie Seismica*, 2001. Ed. Lungu et al., Vol.1, p.1.33-1.71.
- 1.37 Aldea, A., **Arion, C.**, 2001. Microzonarea seismica a conditiilor locale de teren din Bucuresti *A Doua Conferinta Nationala de Inginerie Seismica*, 2001. Ed. Lungu, et al., Vol.1, p.1.72-1.82..
- 1.38 **Arion, C.**, Aldea, A., Neagu, C., 2004. Estimarea proprietăților dinamice ale pământurilor/terenului de fundare în domeniul deformațiilor mici”, Vol I, pag. 27-33, *A 10^a Conferinta Nationala de Geotehnica si Fundatii*, 16-18 septembrie 2005.
- 1.39 **Arion, C.**, Neagu, C., Bucataru, A., 2004. Sistem de încercări de laborator pentru identificarea proprietăților dinamice ale terenului de fundare” Vol I, pag. 33-39, *A 10^a Conferinta Nationala de Geotehnica si Fundatii*, 16-18 septembrie 2005.
- 1.40 **Arion, C.**, Neagu, C., 2006. Estimarea proprietăților dinamice ale pământurilor/terenului de fundare în domeniul deformațiilor mici, *A 3^a Conferinta Nationala de Inginerie Seismica*, 9 decembrie 2005.
- 1.41 Calarasu, E., **Arion, C.**, 2006. Evaluarea conditiilor locale de teren prin metode de prospectare in situ pe amplasamentul statiei seismice UTCB Tei, *A 3^a Conferinta Nationala de Inginerie Seismica*, 9 decembrie 2005.
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- 1.43 Lungu, D., **Arion, C.**, Aldea, A., *Protectia seismica patrimoniului national. Exigente europene si urgente de consolidare in Romania*, A VIII-a Conferinta nationala a specialistilor din domeniul protejarii patrimoniul cultural national, București, 30 Martie-1 Aprilie, 2006
- 1.44 Lungu, D., Aldea A., **Arion C.**, Văcăreanu R., 2007. Cutremure istorice majore în România, *Revista Monumentelor Istorice*, Nr. LXXVI, Institutul Național al Monumentelor Istorice, București, 2007, p.92-116
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- 1.46 Lungu D., Văcăreanu R., **Arion C.**, Chesca B., 2008. *Cercetări experimentale și teoretice pentru reducerea riscului seismic la clădirile de patrimoniu*, Ministerul Educației, Cercetării și Tineretului, Programul de Cercetare de excelență MENER 2005-2008, MENER - Mediu, 4-7 Sept, Sinaia, Univ. Politehnică București, Facultatea Energetică , p. 462-467
- 1.47 Bălă A., Bălan S.F., Ritter J.R.R., Hannich D., **Arion C.**, Seismic in situ measurements in Boreholes in Bucharest City, Romania, GEO 2008, The Scientific meeting of the Faculty of Geology and Geophysics, University of Bucharest, 144 – 150, 2008.
- 1.48 Bala A., **Arion C.**, Neagu C., Balan S.F., 2009. In situ borehole measurements in Bucharest, Romania as a tool for assessment of the seismic site effects; a 4-a Conferința Naționala de Inginerie Seismică, 18 Dec. 2009; p.31-40, publicat de Conspress, ISBN 978-973-100-096-1
- 1.49 **Arion C.**, Aldea A., Neagu C., Calarasu E., 2009. Soil investigations for seismic design; a 4-a Conferința Naționala de Inginerie Seismică, 18 Dec. 2009; p.11-20, publicat de Conspress, ISBN 978-973-100-096-1.
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- 1.52 Vacareanu R., Lungu D., **Arion C.**, 2009. Capacity curves and fragility functions for representative building types in Bucharest; a 4-a Conferința Naționala de Inginerie Seismică, 18 Dec. 2009; p.183-193, publicat de Conspress, ISBN 978-973-100-096
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- 1.54 Pavel F., Vacareanu R., Neagu C., **Arion C.** (2014). Probabilistic seismic hazard assessment for Romania. Part I: Selection of GMPEs. In: Vacareanu R, Ionescu C (eds) Proceedings of the 5th National Conference on Earthquake Engineering & 1st National Conference on Earthquake Engineering and Seismology, CONSPRESS, Bucharest, pp. 213-220.
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 - 1.62 Florin Pavel, Radu Vacareanu and Cristian Arion, (2021) Site-specific seismic hazard analysis for cities in Romania, XIV-a Conferinta Nationala de Geotehnica si Fundatii (CNGF2021), 2-3iunie, 754 pag.
 - 1.63 Elena-Andreea Calarasu, Cristian Arion and Cristian Neagu, (2021), Geo-data modelling for estimating of bucharest near-surface seismic effects, XIV-a Conferinta Nationala de Geotehnica si Fundatii (CNGF2021), 2-3iunie, 754 pag.
 - 1.64 Loretta Batali, Robert Gavriluc, Ionut Alexandru Ciocaniu, Alexandru Doru Teofilescu and Cristian Arion (2021) Metode utilizate in executia lucrarilor de teren pentru investigarea complexa a terenului de fundare, XIV-a Conferinta Nationala de Geotehnica si Fundatii (CNGF2021), 2-3iunie, 754 pag.

Bb2. Internationale

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D. Contracte – lucrari tehnico stiintifice, efectuate pentru o anumita institutie de catre institutia la care este salariat angajatul

(Da) – responsabil de contracte

La Universitatea Tehnica de Constructii Bucuresti

1. Raport de incercari pentru incercarea cu placa executata la amplasamentul situat in orasul Timisoara, beneficiar Zublin Romania, 2005.
2. Rapoarte de studiu si executia a 16 foraje mecanice in carotaj continu de 15m adancime fiecare (255 m) si teste SPT in foraj, de-a lungul DN 56 A Maglavit - Drobeta Turnu Severin, 2005 beneficiar GEOSTUD Romania (15.300 euro).
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4. Identificarea și delimitarea hazardurilor naturale; (cutremure alunecări de teren și inundații). Hărți de hazard la nivelul teritoriului județean. Regiunea 2 – (Sud-Est): judetele Constanta, Tulcea, Braila, Galati, Vrancea, Buzau, 2006 - 2007 beneficiar IPTANA SA. CTR.177/2006.
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7. NATO SFP nr. 981882, 2006-2007, beneficiar NATO SFP, Brusseles, Belgia. Efectuare lucrari de teren
8. Studiu geotehnic pe proprietatea TITAN Mar SA, 2006, beneficiar Titan Mar SA.
9. Asistență tehnică pentru măsurători dinamice în amplasamentul Instalației Post – tratament FCC – Rafinăria Petrobrazi”. 2007
10. Elaborarea studiului geotehnic de completare cladire de birouri 2S+P+8E+Eth si tipografie, sos. Fabrica de Glucoza, nr. 21 sector 2, Bucuresti”, beneficiar Arhitect Service SA, 2008.
11. Executarea de foraje geotehnice si de masuratori de penetrare standard (SPT) pentru amplasamentul Soseaua Nordului 96, 2008, Beneficiar: GEOSERV S.R.L
12. Masuratori si analiza de vibratii ambientale la silozuri, localitatea Alesd (BIHOR). 412/ 20.12.2010
13. Determinarea vibrațiilor terenului induse de metrou pentru amplasamentul situat în Calea Floreasca nr. 246A, sector 1, București. 201/22.06.2011
14. Masurarea perioadelor proprii (cos existent h=150m) in cadrul proiectului “Reparatie cos fum h=150 m, CET-2 cazane 1, 2, 3, si 4” din incinta Lukoil Energy & Gas Romania”, contract nr. 114/10.02.2013

15. Masuratori si analiza de vibratii ambientale pentru o cladire de locuit situata pe strada Sandu Aldea din Bucuresti. contract Nr. 65 /13.3.2014
16. Contract de cercetare stiintifica: Elaborarea Anexelor Naționale și a Exemplelor de Calcul la Eurocodurile structurale pentru Republica Moldova, EN 1990, EN 1991-1, EN 1991-3 și EN 1991-4. 2016 Beneficiar UrbanProiect, Republica Moldova
17. Masuratori downhole in amplasamentul din sos. Fabrica de Glucoza nr. 7", sector 2, București, România", 2016. Beneficiar POPP & ASOCIATII INGINERIE GEOTEHNICA S.R.L
18. Măsurători Downhole în amplasamentul din Bd. Expoziției nr. 22A, sector 1, București, România"; întocmire a Studiului "Analiză de hazard seismic în amplasamentul din Bd. Expoziției nr. 22A, sector 1, București, România". 2017. Beneficiar POPP & ASOCIATII INGINERIE GEOTEHNICA S.R.L
19. Realizare a „Măsurători Downhole; întocmire a Studiului "Analiză de hazard seismic" pentru Faza 2 de dezvoltare a ansamblului „Timpuri Noi Square”, alcătuit din 4 clădiri de birouri având regimul de înălțime 3S+Ds+P+Plaza+2-15E+Et, din amplasamentul Splaiul Unirii nr. 165, sector 3, București, 2018. Beneficiar POPP & ASOCIATII INGINERIE GEOTEHNICA S.R.L
20. Realizare a „Măsurători Downhole; întocmire a Studiului "Analiză de hazard seismic", pentru COMPLEX REZIDENȚIAL 4S+P+5+6-7ER situat în Strada Liviu Rebreanu, Sector 3, București". Contract 14013/2020, Beneficiar POPP & ASOCIATII INGINERIE GEOTEHNICA S.R.L
21. Realizarea de masuratori seismice prin metoda downhole si Analiza de hazard seismic pentru amplasamentul situat in calea Victoriei nr 107, sector 1, Bucuresti. Beneficiar Geosond
22. Elaborare raport și măsurători privind vibrațiile cauzate de baterea palplanșelor de pe malul drept pentru realizarea unui zid de sprijin în zona superioară a taluzului(drum de acces), la barajul Crivina -Stația de tratare Crivina (Strada Crivina nr 35, Oraș Bolentin Vale, județul Giurgiu); Contract 62/2021, beneficiar APA NOVA BUCUREȘTI SA
23. Documentație de prelucrare, interpretare și sinteză a datelor rezultate din înregistrările seismice la brațul Vidraru pe perioada 01.01.2019- 31.12.2019; Contract 60/2021, beneficiar Hidroelectrica.
24. Documentație de prelucrare, interpretare și sinteză a datelor rezultate din înregistrările seismice la barajul Vidraru pe perioada 01.01.2020- 31.12.2020; Contract 91/2021, beneficiar Hidroelectrica.
25. Servicii de întocmire documentație de prelucrare, interpretare și sinteză a datelor rezultate din înregistrările seismice la: Baraj Gura Apelor perioada 01.01.2015- 31.12.2020, Baraj Poiana Ruscă perioada 01.01.2015- 31.12.2020; contract 123/2021, Beneficiar: NAMAZU CONSULTING SRL
26. Realizarea de masuratori seismice prin metoda downhole pentru proiectele: Proiectare și execuție lucrări aferente obiectivului de investiții "Modernizarea liniei feroviare Caransebeș - Timișoara - Arad, Lot 3 Timișoara Est - Ronaț Triaj Gr.D"; Proiectare și execuție lucrări aferente obiectivului de investiții "Modernizarea liniei feroviare Caransebeș - Timișoara - Arad, Lot 4 Timișoara Est - Ronaț Triaj Gr.D", contract19/2023, Beneficiar: ȘC GEOSOND SA
27. Realizarea de masuratori seismice prin metoda downhole pentru proiectul: "AEROPORT INTERNATIONAL MIHAIL KOGALNICEANU. 2023 Beneficiar: S.C. GEOCON GLOBAL CONSULTING S.R.L..
28. Realizarea de masuratori seismice prin metoda downhole pentru proiectul: ANSAMBLU REZIDENȚIAL situat în Strada Fabricii nr.26, Sector 6, București, 2023. Beneficiar : POPP & ASOCIAȚII INGINERIE GEOTEHNICĂ S.R.L
29. Realizarea de masuratori seismice prin metoda downhole in foraje si Realizare studiu de hazard seismic in amplasament pentru PARC EOLIAN ALPHA SUD I situat în Casimcea, Jud. Tulcea. contract 30/2024,. Beneficiar : POPP & ASOCIAȚII INGINERIE GEOTEHNICĂ S.R.L

30. Realizarea de masuratori seismice prin metoda downhole in foraje si Realizare studiu de hazard seismic in amplasament pentru Proiectul CHEAP Frasin-Pangarati contract 41/2024, Beneficiar: SC GEOSOND SA
31. Realizarea de masuratori seismice prin metoda downhole pentru proiectul COMPLEX SPORTIV CONSTANȚA - OBIECTE 1.1, 1.2, 1.3 (STADION, TEREN FOTBAL, CLADIRE VESTIARE SI ESPLANADA. 2025. Beneficiar : POPP & ASOCIAȚII INGINERIE GEOTEHNICĂ S.R.L

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3. Arion, C., Neagu, C., Bucataru, A., 2003. "Study report of ground survey/prove technique", 37p., September, NCSRR
4. Arion, C., Calarasu, E., 2004. "Report on ground investigation techniques", 54p, September, NCSRR
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7. Arion, C., 2004. Individual Training Course Report "Soil tests and investigations (Laboratory and Field experiments) ", prepared for Japan International Cooperation Agency JICA, 118p
9. Cercetari privind evaluarea riscului seismic si elaborarea unui model conceptual si functional pentru estimarea pierderilor utilizand sistemele informationale; CERSIS, Contract de finantare nr. 31-023/2007, 2007-2010. PNCDI2 – Finantare de la Ministerul cercetarii
10. Lucrări de prospectare geotehnică pentru amplasamentul Cotroceni Park, Bulevardul Vasile Milea, Sector 6. (2008) Beneficiar S.C. GEOSOLUTION EXPERT S.R.L

(Db) – participant la contracte (selectie)

La Universitatea Tehnica de Constructii Bucuresti

Db1. Nationale

Proiecte de cercetare-dezvoltare pe baza de contract/grant

- CN.1. Ghid de actiuni pentru reducerea riscului seismic pentru constructiile existente. C 12/1998 cu MLPAT
- CN.2. Analiza vulnerabilitatii fondului construit si microzonarea seismica in scopul realizarii planului de amenajare a teritoriului - zona metropolitana a Bucurestiului, C 151 bis/1998 cu Universitatea Bucuresti
- CN.3. Raport de consultanta privind proiectarea la vant a pilonilor Setelcom de 30, 40 si 50 m inaltime, tip C si tip E, conform codurilor/standardelor de incarcari din vant din Romania, Europa de Vest, SUA si Rusia, beneficiar SC Setelcom SRL, 1998
- CN.4. Metodologie pentru utilizarea sistemelor geografice informatice (GIS) la evaluarea hazardului seismic si vulnerabilitatii fondului construit existent, C 128 A, MLPAT, 1999
- CN.5. Studiu privind zonarea seismica a hazardului provenind din sursa vrancea si evaluarea riscului seismic pentru constructiile din bucuresti utilizand tehnologii GIS

- (Sisteme Geografice Informatice), Tema B13, C. 423/96, Act ad. 584/99, ANSTI, 1999
- CN.6. Evaluarea matricilor de vulnerabilitate seismica a unor structuri de constructii caracteristice fondului construit existent, Faza: Stabilirea metodologiei de evaluare a matricilor de vulnerabilitate pentru constructii din beton armat, ANSTI, 2000, Tema B6
- CN.7. Studiu privind zonarea seismica a hazardului provenind din sursa Vrancea si evaluarea riscului seismic pentru constructiile din Bucuresti utilizand tehnologii GIS (sisteme geografice informatice), Tema A19, ANSTI, 2000
- CN.8. Studiu privind reseaua unificata de accelerometre in Romania – in vederea zonarii seismice a teritoriului utilizand tehnologii GIS, Tema A20, ANSTI, 2000
- CN.9. Banci de date (GIS) cuprinzand caracteristici de fragilitate ale fondului construit din Bucuresti avariat de cutremure, Tema B4, ANSTI, 2000
- CN.10. Microzonare seismica a Municipiului Bucuresti: determinarea instrumentala a caracteristicilor dinamice ale terenului in Municipiul Bucuresti, Tema B10, ANSTI, 2000
- CN.11. Studii si cercetari asupra conditiilor de aplicare a Eurocod-urilor structurale in proiectarea structurilor de beton armat la actiuni sesimice Faza: Calibrarea globala a factorilor partiali de siguranta din expresia fortei seismice de proiectare in Eurocodul 8, codurile americane (UBC 1997, ASCE 7-98) si codul romanesc P100-92, Tema A32, ANSTI, 2000
- CN.12. Metodologie pentru evaluarea vulnerabilitatii structurilor la actiuni seismice (Revizuire cap. 5.11 din Normativ P100-92), Contract 121/2000, MLPAT, 2000
- CN.13. Calibrarea globala a factorilor partiali de siguranta din expresia fortei seismice de proiectare in Eurocode 8, codurile americane (UBC 1997, ASCE 7-98) si codul romanesc P100-92, ANSTI, 2000 (Tema A32, contract 423-96)
- CN.14. Normativ de proiectare antiseismica a constructiilor civile, social culturale, agrozootehnice si industriale: Reguli generale, clasificarea constructiilor, actiunea seismica, prevederi armonizate cu EUROCODE 8, Contract 159/ 2001 cu MLPTL
- CN.15. Cod de proiectare privind bazele proiectarii si actiunile asupra constructiilor. Actiunea vantului, Contract 160/ 2001 cu MLPTL
- CN.16. Studiu privind zonarea seismica a hazardului provenind din sursa Vrancea si evaluarea riscului seismic pentru constructiile din Bucuresti utilizand tehnologii GIS (sisteme geografice informatice), Tema A19, ANSTI, 2000 si Tema A8, 2001
- CN.17. Microzonarea seismica a Municipiului Bucuresti: determinarea instrumentala a caracteristicilor dinamice ale terenului in Municipiul Bucuresti, Tema B10, beneficiar MEC/ANSTI, 2000, Tema A10: 2001 Microzonarea caracteristicilor dinamice ale terenului si faza finala Tema A10, beneficiar MEC, C.551/2000, a.a. 1/2002
- CN.18. Zonarea hazardului seismic in zona Vrancea. Integrarea hazardului seismic local in hazardul seismic regional.” Act aditional nr.1/2002 la Contract nr.589/2000, beneficiar MEC, 2002
- CN.19. Studiu comparativ al conditiilor seismice din 4 amplasamente din Romania, beneficiar Saint Gobain Sticla Romania, 2002
- CN.20. Studiu seismic pentru amplasamentul din Calea Victoriei nr. 37, Nivel de hazard macro si micro seismic– beneficiar BIP S.A., 2002
- CN.21. Grant CNCIS, Cod D142/2000, Program de dezvoltare a disciplinelor de studii aprofundate Inginerie Structurala si Metode Avansate de Calcul si a disciplinelor de doctorat Siguranta Structurilor si Inginerie Seismica si Constructii de Beton Armat, UTCB - 2000-2002
- CN.22. Misiune de masuratori prin metoda microvibratiilor aplicate structurii de rezistenta a imobilului “Tour Place de la Victoire” in vederea determinarii pe cale experimentală a caracteristicilor dinamice a structurii de rezistenta a cladirii – beneficiar SOCONAC SA, 2003
- CN.23. Studiu de hazard seismic de amplasament pentru obiectivul Milenium Bussiness Center din Bucuresti, beneficiar S.C. AECEK-ROM Construct SRL, C65/2003
- CN.24. Caracterizarea seismica a geologiei superficiale a Municipiului Bucuresti”, beneficiar INCERC Bucuresti, C224/2003

- CN.25. Modelarea si analiza computerizata a starii de eforturi si deformatii a peretilor mulati pentru o facilitate industriala, beneficiar Saint-Gobain Romania, 2004
- CN.26. Cod de proiectare pentru evaluarea actiunii zapezii asupra constructiilor, MLPTL, 2004
- CN.27. Utilizarea tehnicilor spatiale in evaluarea riscului seismic in Romania. Studiu pilot pentru municipiul Bucuresti – Programul Aerospacial – Cod 11025 EVRISE –2001-2004
- CN.28. Cod de proiectare pentru bazele proiectarii structurilor in constructii, MLPTL, 2004
- CN.29. Site dependent response spectra for PETROM CITY Bucharest., 2007. Beneficiar KHP König und Heunisch Planungsgesellschaft, Germany.
- CN.30. Bridging the Gap between Seismology and Earthquake Engineering: from the seismicity of Romania towards a refined implementation of Seismic action EN1998-1 in earthquake resistant design of buildings (BIGSEES), contract 72/2012, PN-II-PT-PCCA 2011-3.2-0788
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- CN.32. Evaluarea multidisciplinară a mărimii efectelor seismice locale în microzonarea Bucureștiului, EMMESLAB, Contract de finantare nr. 31-038/18.09.2007, 2007- 2010, PNCDI2
- CN.33. Multihazard și vulnerabilitate în contextul seismic al Municipiului București, HERA, Contract de finantare nr. 31-005/18.09.2007, 2007- 2010, PNCDI2
- CN.34. Diagnoza vulnerabilitatii infrastructurii urbane la dezastre naturale si K-managementul riscului integrat. Aplicatie pentru municipiul Iasi. Contract 31-065, 2007-2010. PNCDI2
- CN.35. Cercetari privind evaluarea riscului seismic si elaborarea unui model conceptual si functional pentru estimarea pierderilor utilizand sistemele informationale; CERSIS, Contract de finantare nr. 31-023/2007, 2007-2010. PNCDI2
- CN.36. Solutii tehnice integrate structurale si arhitecturale, tehnologii si materiale avansate pentru reducerea riscului, cresterea sigurantei constructiilor si securitatii vietii la actiuni extreme; Contract de finantare nr. 31-031/2007, 2007-2010. PNCDI2
- CN.37. STUDIU DE SEISMICITATE, HAZARD SI IMPACT PENTRU CLADIRILE PUBLICE DIN JUDETELE DE LA FRONTIERA ROMANIA-BULGARIA, ctr. 1/2011
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- CN.39. ctr.25/28.03.2006, PATJ – SECTIUNEA ZONE DE RISC NATURAL – HARTA DE RISC NATURAL LA SEISME SI INUNDATII A JUDETULUI IALOMITA, (Florin Gaman - responsabil).
- CN.40. Masuratori de vibratii ambientale la 2 cladiri de birouri din Bucuresti, Bd. Pierre de Coubertin nr. 3-5 Contract nr. 63 / 2014 Beneficiar: ELJ Proprietati SRL
- CN.41. Seismic hazard study for offshore oil and gas platform, 2016. Beneficiar Black Sea oil & gas SRL (BSOG) PO – 44 – 16 / 2016
- CN.42. Studiu pentru determinarea efectelor de amplificare ale mișcărilor seismice produse de terenul din amplasamentele platforma Dacia, A.I.L.N., matrițe Dacia Pitești (2019), comanda nr. 4800345148/11.10.2018
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- CN.44. Elaborarea Studiului Seismic – Sala Polivalenta din Complexul Lia Manoliu, 2019. Contract nr. 93/2019 (UTCB) SI 523/2019 (TCMB-SA).
- CN.45. Contract 7189452 / 2019 - Expertise on seismic Risk Reduction in Romania
- CN.46. Contract 7193737 / 2019 - Bucharest Seismic Risk Reduction Program

- CN.47. Contract 7197623 / 2020 - Technical Support to the Preparation of a National Intervention and Investment Strategy for Seismic Risk Reduction in Romania
- CN.48. Studiu geotehnic, studiu hidrogeologic, studiu seismic, studiu geotermal si investigatii geofizice amplasament carbochim, cluj napoca partea c - studiu seismic beneficiar: 4b consultanta arhitectura s.r.l, 2021
- CN.49. Contract 7203950 / 2022 - Bucharest Seismic Risk Reduction Program, Servicii tematice integrate în domeniul observarii Pamântului - o platforma nationala pentru inovare, **Nr. Contract: 336/390012/01.02.2021**, Cod MySmis: 108206, 2021-2023, Apel de proiecte nr. POC-A.1-A.1.1.3-H-2016 - Crearea de sinergii cu acțiunile de CDI ale programului-cadru ORIZONT 2020 al Uniunii Europene și alte programe CDI internaționale,

Db2. Internationale

- CI.1. RADIUS United Nations, IDNDR (1998 –2000)
- CI.2. JICA Technical Cooperation Project for Seismic Risk Reduction for Buildings and Structures in Romania, finantat de Agentia de Cooperare Internationala a Japoniei si de catre Ministerul Dezvoltarii, Lucrarilor Publice si Locuintelor din Romania - 2002-2008
- CI.3. IAEA CRP-NFE Camus Benchmark - IAEA Research Contract No: 12146/RBF - Numerical Simulations and Engineering Methods for the Evaluation of Expected Seismic Performances – 2002-2005, Executant
- CI.4. Numerical simulations and engineering methods for the evaluation of expected seismic performance, European Commission, Directorate General JRC Joint Research Centre, Institute for the Protection and the Security of the Citizen, Italy, C. 20303 F1 EI ISP RO – 2002-2005, Executant
- CI.5. Support for the Probabilistic Seismic Hazard Analysis for the Cernavoda Site", beneficiar Paul C. Rizzo Associates, Passadena, USA, 2003 (executant)
- CI.6. EVK4-CT-2000-00014 RISK-UE "An advanced approach to earthquake risk scenarios with applications to different European towns", finantat de Comisia Europeana, Fifth Framework, 2001-2004 – Executant
- CI.7. NEMISREF "New Methods for Mitigation of Seismic Risk of Existing Foundations" - (#GRD1-40457) shared-cost RTD project of the GROWTH programme (5th Framework Programme of the European Commission) – 2002-2005, Executant
- CI.8. Collaborative Research Center (CRC) 461 of SFB, Germany: Strong Earthquakes: A Challenge for Geosciences and Civil Engineering at Karlsruhe University – 2000-2007, Executant
- CI.9. PROHITECH Earthquake Protection of Historical Buildings by Reversible Mixed Technologies, 2004-2007 contract INCO-CT-2004-509119 with RESEARCH DIRECTORATE-GENERAL, 6th Framework Programme of the European Commission
- CI.10. COST Action C26, "URBAN HABITAT CONSTRUCTIONS UNDER CATASTROPHIC EVENTS"-2006-2010, financed by EU.
- CI.11. COST Action C25, "Sustainability of Constructions, Integrated Approach to Life-Time Structural Engineering" -2006-2010, financed by EU.
- CI.12. ANDROID disaster resilience network, Erasmus academic network, 2012-2015, financed by EU.

E. Alte lucrari

Coduri de proiectare

- E.1 Coautor –Cod de proiectare seismica. Partea I – prevederi de proiectare pentru clădiri. P100-1/2006. Recomandări de proiectare - cod de proiectare).

- E.2 Coautor – Cod de proiectare. Evaluarea actiunii zapezii asupra constructiilor” indicativ CR1-1-3-2005, Monitorul Oficial al Romaniei, Partea I, Nr 148 bis, 16.02.2006
- E.3 Coautor – Cod de proiectare. Bazele proiectării structurilor în construcții, indicativ CR 0-2005 Monitorul Oficial al Romaniei, Partea I, Nr. 148 bis din 16.02.2006
- E.4 Coautor – Cod de proiectare. Bazele proiectarii si actiuni asupra constructiilor. Actiunea vantului, indicativ NP-082-04, Monitorul Oficial al Romaniei, Nr 349 bis, 25.04.2005
- E.5 Coautor - Cod de proiectare seismica, Partea I - Prevederi de proiectare pentru cladiri, indicativ P100-1/2006, Monitorul Oficial al Romaniei, Partea I, Nr. 803 bis/25.09.2006
- E.6 Coautor –Cod de proiectare. Bazele proiectării structurilor în construcții (Revizuire CR 0-2005. Comentarii, recomandări de proiectare și exemple de calcul). C453/2010
- E.7 Coautor –Cod de proiectare seismica. Partea I – prevederi de proiectare pentru clădiri. (Revizuire P100-1/2006. Recomandări de proiectare - cod de proiectare), C114/2010
- E.8 Coautor –Cod de proiectare. Evaluarea acțiunii zăpezii asupra construcțiilor (Revizuire CR 1-1-3-2005. Comentarii, Recomandări de proiectare și exemple de calcul), beneficiar MDRT, C 186/2010, 2010-2013 (~37610 Euro + TVA)
- E.9. Cod de proiectare seismică, P100-3 / 2008 - Partea a III-a - Prevederi pentru evaluarea seismică a clădirilor existente, Beneficiar: MTCT
- E.10 Coautor –Acțiunea vântului (Revizuire NP 082-04. Comentarii, recomandări de proiectare și exemple de calcul), C451/2010
- E.11 Coautor –Cod de proiectare seismica. Partea I – prevederi de proiectare pentru clădiri. P100-1/2013. Recomandări de proiectare - cod de proiectare).

Proiectare structuri de rezistenta

- 1. Calculul analizei structurale pentru un imobil cu structura din beton armat, realizarea planurilor de cofraj si armare pentru grinzi si pereti ale unui ansamblu de locuite format din 2 blocuri P+8E amplasat pe strada Calarasilor nr.156, in cadrul firmei INGINERIE CIVILA SRL, 1996.
- 2. Calculul analizei structurale pentru structura existenta din beton armat si solutia de consolidare si extindere a 2 tronsoane (9 in total) din Marriott Grand Hotel - Bucuresti si proiectul de executie pentru acestea, in cadrul firmei INGINERIE CIVILA SRL, 1996.
- 3. Calculul analizei structurale pentru o structura din beton armat, realizarea planurilor de cofraj si armare pentru grinzi si pereti ale unei cladiri de birouri 3S+P+8E amplasata pe strada Mircea Voda, Bucuresti in cadrul firmei INGINERIE CIVILA SRL, 1996.
- 4. Proiectarea unui rezervor din beton armat ingropat, amplasat in Complexul “Stadionul National”, Bucuresti, in cadrul firmei INGINERIE CIVILA SRL, 1996.
- 5. Responsabil si executant al proiectului structurii pentru Sediul Regiei de Apa Sector 2, Bucuresti, in cadrul firmei INGINERIE CIVILA SRL, 1997.
- 6. Calculul analizei structurale pentru Sediul BRD Piata Victoriei (Victoria Tower), Bucuresti (in cadrul firmei MIRO Grup SRL, 1999.
- 7. Calculul analizei structurale pentru Sediul Casa de Pensii (Tg. Jiu) (in cadrul firmei MIRO Grup SRL, 2001.

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Semnătura

