

LISTĂ DE LUCRĂRI

a) Lucrări considerate de candidat a fi cele mai relevante (11 lucrări)

1. **Collapse prevention design criteria for moment connections in multi-story steel frames under extreme actions** - D. Dubina, F. Dinu, I. Marginean, **I. Petran** –“4th International Conference on Integrity, Reliability and Failure”, Funchal, Portugal, 23-27 iunie 2013.
2. **Structural connections of steel building frames under extreme loading** - Dinu Fl., Dubina D., Marginean,I, Neagu C., **Petran I.** -, Advanced Materials Research ,Vol 1111 (2015), pp. 223-228.
3. **Axial strength and deformation demands for T-stub connection components at catenary stage in the beams** – Florea Dinu, Dan Dubina, Ioan Marginean, Calin Neagu & **Ioan Petran** - 8th International Conference on Behaviour of Steel Structures in Seismic Areas, STESSA 2015, Shanghai, China, July 1-3, 2015.
4. **Experimental study of seismic resistant steel frames in case of column loss** - Dinu Fl., Marginean I., Dubina D., **Petran I.** - Eighth International Conference on advances in steel structures, Lisbon, Portugal, July 22-24, 2015.
5. **Experimental testing and numerical analysis of 3D steel frame system under column loss** – Florea Dinu, Ioan Marginean, Dan Dubina, **Ioan Petran**, Engineering Structures, Volume 113 (pp.59-70), 2016.
6. **Development of plastic hinges in steel and composite beams of eccentrically braced frames** – M. Senila, **I. Petran**, “Computational Civil Engineering 2015”, International Symposium, Iasi, Romania, May 22, 2015.
7. **Numerical modeling of dynamic response of steel moment frames following sudden column loss** – I. Marginean, F. Dinu, D. Dubina, **I. Petran**, M. Senila and H. Szilagyi - The International Colloquium on Stability and Ductility of Steel Structures (SDSS'2016), Timisoara, Romania, 30 may-1 june 2016.
8. **Experimental research on the behavior of steel moment frame connections under column loss scenario** – Florea Dinu, Ioan Marginean, Dan Dubina, **Ioan Petran**, Andreea Sigauan – 8th International Workshop on Connections in Steel Structures, Boston, Massachusetts, USA, May 24-26, 2016.
9. **Structural Investigations on the Progressive Collapse of a Steel-Timber Intermediate Roofing**, Calin NEAGU, Dan Dubina, Florea Dinu, **Ioan Petran**, Proceedings of the Romanian Academy, Series A, Volume 22, Number 3/2021, pp.255-264.
10. **Experimental Evaluation of Energy-Efficiency in a Holistically Designed Building**, Raluca Buzatu; Viorel Ungureanu; Adrian Ciutina; Mihaita Gireada; Daniel Vitan; **Ioan Petran**, Energies 2021, Volume 14, Issue 16, 5061.
11. **Thermo-Energy Performance of Lightweight Steel Framed Constructions:A Case Study**, Ligia Moga, **Ioan Petran**, Paulo Santos, Viorel Ungureanu, Buildings 2022, 12(3), 321.

b) Teză de doctorat

Elemente cu secțiune mixtă oțel-beton. Calculul conexiunii la grinzile mixte oțel-beton. Doctor în inginerie civilă obținut la Universitatea Tehnică din Cluj Napoca, în anul 2002. Distincția: Foarte bine.

c) Cărți și capitole în cărți

1. **Ioan Petran**, Cristina Câmpian, Vasile Păcurar - Elemente cu secțiune mixtă oțel-beton. Vol.1, Mediamira Cluj-Napoca, 2004.
2. Cristina Câmpian, **Ioan Petran**, Vasile Păcurar, Petru Moga - **Construcții metalice: materiale si calculul îmbinărilor**, U.T.Press Cluj-Napoca, 2003.
3. Vasile Pacurar, Cristina Campian, **Ioan Petran**, Bogdan Petrina, Catalin Moga - **Construcții metalice: indrumator de proiect**, U.T.Press Cluj-Napoca, 2004.
4. Petru Moga, Cristina Campian, **Ioan Petran**, Vasile Pacurar - **Proiectarea elementelor metalice: calcul după SR EN 1993-1**, U.T.Press Cluj-Napoca, 2008.
5. Cătălin Moga, Cristina Câmpian, **Ioan Petran** - **Construcții metalice: module si exemple de calcul bazate pe SR EN 1993-1**, U.T.Press Cluj-Napoca, 2008.
6. Zsolt Nagy, **Ioan Petran**, Cristina Campian, Zoltan Kiss – Construiește cu „Steel”, Mediamira Cluj Napoca, 2010.
7. **Ioan Petran**, Roland Mihai Senila – **Design of Pitched Roof Steel Portal Frame Structure**, Mediamira Cluj-Napoca, 2017.
8. Senila Mihai, **Petran Ioan** - **Proiectarea structurilor din oțel de tipul cadre portal**, 260 pagini, Mediamira Cluj-Napoca, 2019
9. Zsolt Nagy, Cristina Campian, **Ioan Petran**, Catalin Moga, Mihai Senila, Gabriel Urian, Paul Pernes, Maria Pop - **Construiește cu "Steel"**. Contributii ale colectivului de Structuri Metalice, in proiectare si cercetare. 200 pagini, Mediamira Cluj-Napoca, 2020

d) Articole publicate în reviste din fluxul științific international principal (reviste ISI, proceedinguri ISI)

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2. **Monotonic and cyclic behaviour of fully encased composite columns** - C. Campian, V. Pacurar, **I. Petran**, R. Balc –“Proceedings of the International Conference in Metal Structures”, Poiana Brasov, Romania, 20-22 Septembrie 2006, pag. 351- 357.
3. **Comparison between behavior of steel and composite Eccentrically Braced Frames with long links** - M. Senila, **I. Petran** – Recent Progress in Steel and Composite Structures,

- Taylor&Francis Group, London, ISBN 978-1-138-02946-0, Zielona Gora, Poland, Jun 15-17, 2016.
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 5. **Large prefabricated concrete panels collective dwellings from the 1970s: context and improvements.** - D.M. Muntean, V. Ungureanu, **I. Petran**, M. Georgescu - World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2017, Prague, Czech Republic, WMCAUS 2017, IOP Conf. Ser.: Mater. Sci. Eng., 245 (2017), 052050, doi: 10.1088/1757-899X/245/5/052050.
 6. **Conversion of a temporary tent with steel frame into a permanent warehouse.** - M. Georgescu, V. Ungureanu, D. Grecea, **I. Petran** - World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium 2017, Prague, Czech Republic, WMCAUS 2017, IOP Conf. Series: Materials Science and Engineering, 245 (2017), 022056 doi:10.1088/1757-899X/245/2/022056.
 7. **Experimental Studies Regarding the Influence of the Connection between Steel and Concrete in Case of Eccentrically Braced Frames.** - M. Senila, A. Handabut, A. Crisan, **I. Petran** - 16th National Technical-Scientific Conference on Modern Technologies for the 3rd Millennium Location, Oradea, ROMANIA, MAR 23-24, 2017, pag. 245-250.
 8. **Plastic hinges in steel and composite eccentrically braced frames with long links.** – Senila M. and **Petran I.** – 17th National Technical-Scientific Conference on Modern Technologies for the 3rd Millennium Location, Oradea, ROMANIA, MAR 22-23, 2018, pag. 357-362.
 9. **DEVELOPMENT OF ALTERNATE LOAD PATHS IN STEEL FRAMES WITH COMPOSITE BEAMS SUBJECT TO ACCIDENTAL EXPLOSIONS**, Dinu, Florea; Marginean, Ioan; **Petran, Ioan**; Senila, Mihai; Neagu, Calin; Dubina, Dan, IRF2018: PROCEEDINGS OF THE 6TH INTERNATIONAL CONFERENCE ON INTEGRITY-RELIABILITY-FAILURE, Edited by:Gomes, JFS; Meguid, SA, Pages: 581-582, Published: 2018
 10. **Influence of the composite action for EBF with long dissipative links**, **Petran, Ioan**; Senila, Mihai; Steel and Composite Structures, DOI: 10.12989/SCS.2021.41.5
 11. **Structural Investigations on the Progressive Collapse of a Steel-Timber Intermediate Roofing**, Calin NEAGU, Dan Dubina, Florea Dinu, **Ioan Petran**, Proceedings of the Romanian Academy, Vol 22, nr. 3, 255-264, 2021
 12. **Experimental Evaluation of Energy- Efficiency in a Holistically Designed Building**, Raluca Buzatu; Viorel Ungureanu; Adrian Ciutina; Mihaita Gireada; Daniel Vitan; **Ioan Petran**, Energies 2021, Volume 14, Issue 16, 5061

e) Articole publicate la conferințe internaționale de specialitate din străinătate

1. **Steel-concrete composite structures for buildings** - V. Pacurar, M. Litan, C. Campian, **I. Petran** – Proceedings of the XXVth IAHS World Housing Congress, 1-4 Septembrie 1997, Sinaia, Romania, pag. 278-284.
2. **Consideratii privind comportarea conectorilor din cupoane de profil supusi la solicitari alternante de tip seismic** - V. Pacurar, **I. Petran** – a VIII-a Conferinta Internationala de Constructii Metalice, Timisoara 25-28 sept 1997, pag. 373-378.
3. **Research concerning the behaviour of composite steel-concrete element connectors subjected to dynamic loads of seismic type** - M. Litan, V. Pacurar, **I. Petran**, R. Balc & C. Campian – The International Seminar on The Behaviour of Constructions Under Special Loads, Cluj-Napoca, Romania, 10-13 June 1999, Timișoara: Editura Orizonturi Universitare 2000, pag. 67-71.
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7. **Research concerning the behavior of stud ductile connectors in composite steel-concrete elements subjected to pulsant and alternative cyclic loads** –**I. Petran** - Proceeding of the International Conference Constructions 2003, Cluj-Napoca: Argonaut & Napoca Star, 2003, vol. 2, pag. 403-410.
8. **Large deflection distributed plasticity analysis of 3D composite steel-concrete frameworks** - C.G. Chiorean, G.M. Barsan, S. Varga, **I. Petran** – “International Conference and Computational & Experimental Engineering and Sciences”- ICCES 2010.
9. **Nonlinear inelastic analysis of 3D composite steel-concrete frameworks** - C.G. Chiorean, **I. Petran** - “International Conference and Computational & Experimental Engineering and Sciences” ICCES 2010.
10. **Collapse prevention design criteria for moment connections in multi-story steel frames under extreme actions** - D. Dubina, F. Dinu, I. Marginean, **I. Petran** –“4th International Conference on Integrity, Reliability and Failure”, Funchal, Portugal, 23-27 iunie 2013.
11. **Limit analysis fast methods for assessment of progressive collapse potential in RC structures** - A. Ioani, **I. Petran**, M. Botez, L. Bredean –“ 4th International Workshop, India on Performance, Protection and Strengthening of structures under extreme loading”, Mysore, India, 26-27 august 2013.

12. **Accuracy and Efficiency in Progressive Collapse Analysis: Real Structures and Successively Reduced Substructures** - M. Botez, L. Bredean, **I. Petran**, A.M. Ioani –“4th International Workshop, India on Performance, Protection and Strengthening of structures under extreme loading”, Mysore, India, 26-27 august 2013.
13. **Numerical simulation of 3D assembly models under large deformation conditions** -Dinu F., Dubina D., **Petran I.**, Ciutina A., Kovescsi T., - 7th European Conference on Steel Composite Structures, Napoli, Italy, ISBN 978-92-9147-121-8, 2014.
14. **Influence of the connection between steel and concrete on the seismic behaviour of steel ebf** - Ciutina A., Dubina D., Danku G., Senila M., **Petran I.** ,- 7th European Conference on Steel Composite Structures, Napoli, Italy, ISBN 978-92-9147-121-8, 275-276, 2014.
15. **Axial strength and deformation demands for T-stub connection components at catenary stage in the beams** – Florea Dinu, Dan Dubina, Ioan Marginean, Calin Neagu & Ioan Petran - 8th International Conference on Behaviour of Steel Structures in Seismic Areas, STESSA 2015, Shanghai, China, July 1-3, 2015.
16. **Experimental study of seismic resistant steel frames in case of column loss** - Dinu Fl., Marginean I., Dubina D., Petran I. - Eighth International Conference on advances in steel structures, Lisbon, Portugal, July 22-24, 2015.
17. **Development of plastic hinges in steel and composite beams of eccentrically braced frames** – M. Senila, I. Petran, “Computational Civil Engineering 2015”, International Symposium, Iasi, Romania, May 22, 2015.
18. **Structural connections of steel building frames under extreme loading** - Dinu Fl., Dubina D., Marginean,I, Neagu C., Petran I. -, Advanced Materials Research ,Vol 1111 (2015), pp. 223-228.
19. **Experimental research on the behavior of steel moment frame connections under column loss scenario** – Florea Dinu, Ioan Marginean, Dan Dubina, Ioan Petran, Andreea Sigauan – 8th International Workshop on Connections in Steel Structures, Boston, Massachusetts, USA, May 24-26, 2016.
20. **Experimental testing of 3D steel frame with composite beams under column loss** – F. Dinu, I. Marginean, D. Dubina, I. Petran, M. Pastrav, A.Sigauan and A. Ciutina – The International Colloquium on Stability and Ductility of Steel Structures (SDSS’2016), Timisoara, Romania, 30 may-1 june 2016.
21. **Numerical modeling of dynamic response of steel moment frames following sudden column loss** – I. Marginean, F. Dinu, D. Dubina, I. Petran, M. Senila and H. Szilagyi - The International Colloquium on Stability and Ductility of Steel Structures (SDSS’2016), Timisoara, Romania, 30 may-1 june 2016.
22. **Development of alternate load paths in steel frames with composite beams subject to accidental explosions**, Florea Dinu, Ioan Marginean, **Ioan Petran**, Mihai Senila, Calin Neagu, Dan Dubina, Proceeding IRF2018: 6th International Conference Integrity-Reliability-Failure, Lisbon, Portugal, 22-26 July 2018, p.581-586.

23. **Numerical studies on seismic response of steel and composite eccentrically braced frames**, Senila R. Mihai, **Petran Ioan**, Calin Neagu, Florea Dinu, Proceeding IRF2018: 6th International Conference Integrity-Reliability-Failure, Lisbon, Portugal, 22-26 July 2018, p.587-592.

f) Articole publicate în reviste de specialitate naționale

1. **Recommendations concerning calculus of connexion at composite steel-concrete beams subjected to cyclic loads – I. Petran** - Acta Technica Napocensis, Civil Engineering-Architecture, Cluj-Napoca, vol. 45, 2002, pag. 47-50.
2. **Research concerning the behaviour of stud ductile connectors in composite steel-concrete elements subjected to pulsant and alternative cyclic loads – I. Petran , V. Pacurar** : Acta Technica Napocensis, Civil Engineering-Architecture, Cluj-Napoca, vol. 45, 2002, pag. 41-46.
3. **Proiectarea imbinarilor grinda-stalp ale structurilor in cadre metalice pentru prevenirea colapsului progresiv in cazul producerii unor actiuni accidentale** - Dinu F., Marginean I., Dubina D., **Petran I.**, Pastrav M., Handabut A., Senila M. - AICPS 2015.
4. **Evaluarea comportarii structurilor pentru cladiri sub efectul exploziilor** - Dinu F., Dubina D., Kovacs A., Ghicioi E., Marginean I., Vasilescu D., **Petran I.** - AICPS 2015.

g) Articole publicate la conferințe naționale sau locale de specialitate

1. **Proiectarea structurilor mixte otel-beton**, Pacurar V., Litan M., **Petran I.**, Simpozionul Internațional “Introducerea în România a Eurocodurilor pentru construcții”, Iași, iunie 1995,
2. **Calculul conectorilor și a conexiunii la grinzile mixte otel-beton**. Pacurar V., Litan M., **Petran I.**, Sibiu, octombrie 1995,
3. **Stalpi cu sectiune compusa din tuburi rectangulare cu pereti subtiri** - P. Moga, C. Moga, St.I. Gutiu, **I. Petran** - Structuri metalice amplasate in zone seismice. Preocupari actuale. Zilele Academice Timisene, 2007, pag.183-188.
4. **Stalpi din profile laminate partial inglobate in beton** - C. Moga, **I. Petran**, G. Urian – a III-a Sesiune Stiintifica CIB 2007, 15-16 Noiembrie 2007, Brasov 113-118.
5. **Analiza statica neliniara a structurilor compozite otel-beton spatiale** - C. Chiorean, **I. Petran**, M. Nedelcu, S. Varga –“Lucrarile celei de-a 12-a Conferinte Nationale de Constructii Metalice”, Timisoara, 26-27 noiembrie 2010.
6. **Modelarea interactiunii dintre grinzile din otel si planseul din beton armat la structuri in cadre solificate la actiuni accidentale**- Dinu Fl., **Petran I.**, Marginean I., Handabut A. , Simpozionul Cercetari actuale in domeniul constructiilor metalice. Sisteme structurale si solutii inovative. Zilele Academice Timisene, ZAT 24 mai 2013.
7. **Concepția structurală si proiectarea pe baza controlului mecanismului de cedare a structurilor multietajate supuse la acțiuni accidentale**, F. Dinu, D. Dubină, I. Mărginean, **I. Petran**, M. Păstrav, A. Kovacs, D. Aschilean, , a XIII-a Conferință Națională de Construcții Metalice, București, 21-22 noiembrie 2013.

8. **Îmbinări grinda-stâlp pentru structuri în cadre metalice cu rezistență ridicată la colaps progresiv** – I. Marginean, F. Dinu, D. Dubina, C. Neagu, I. Petran - Lucrările celei de-a XIV-a Conferințe Națională de Construcții Metalice, Cluj-Napoca, 19-20 noiembrie 2015, p.237-246.
9. **Efectele directe ale exploziilor asupra elementelor structurale ale clădirilor în cadre metalice multietajate** – F. Dinu, I. Marginean, D. Dubina, A. Kovacs, E. Ghicioi, D. Vasilescu, I. Petran - Lucrările celei de-a XIV-a Conferințe Națională de Construcții Metalice, Cluj-Napoca, 19-20 noiembrie 2015, p.257-268.
10. **Contribuția planșeului la dezvoltarea căilor alternative de transfer la structuri în cadre metalice multietajate supuse la cedări locale** – F. Dinu, M. Pastrav, A. Ciutina, D. Dubina, I. Petran, I. Marginean, A. Șigăuan, M. Senila - Lucrările celei de-a XIV-a Conferințe Națională de Construcții Metalice, Cluj-Napoca, 19-20 noiembrie 2015, p.269-278.
11. **Influența conexiunii dintre oțel și beton asupra comportamentului seismic al cadrelor duale** – D. Dubina, A. Ciutina, G. Danku, M. Senila, I. Petran - Lucrările celei de-a XIV-a Conferințe Națională de Construcții Metalice, Cluj-Napoca, 19-20 noiembrie 2015, p.709-720.
12. **Formarea articulațiilor plastice la cadrele din oțel și mixte oțel-beton, contravantuite excentric cu bare disipative lungi** – Mihai Senila, Ioan Petran, Lucrările celei de-a 16-a Conferințe Naționale de Construcții Metalice, Timisoara, 13-14 iunie, 2019.