

SVETLANA M. KOSTIC

PERSONAL INFORMATION

Address: Faculty of Civil Engineering, University of Belgrade,
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Email: svetlana@grf.bg.ac.rs

Gender: female

Nationality: Serbian

Languages: Serbian (mother tongue), English (excellent), French (good)

EDUCATION

1997-2003 Faculty of Civil Engineering, University of Belgrade, Department for
Constructions, Bachelor studies

2004-2007 Computational Engineering, Faculty of Civil Engineering, University of Belgrade,
Master studies;
Master thesis: *Analysis of continuous composite steel and concrete beam*

2007-2013 Faculty of Civil Engineering, University of Belgrade, PhD studies;
PhD thesis: *Generalized Plasticity Model for Nonlinear Space Frame Analysis*

CURRENT POSITION

2019-Present Associate Professor, Faculty of Civil Engineering, University of Belgrade, Chair of
Engineering Mechanics and Theory of Structures

PREVIOUS POSITIONS

2003-2007 Teaching Assistant, Faculty of Civil Engineering, University of Belgrade, Chair of
Engineering Mechanics and Theory of Structures

2007-2008 Research scholar, University of California, Berkeley, USA

2008-2014 Teaching Assistant, Faculty of Civil Engineering, University of Belgrade, Chair of
Engineering Mechanics and Theory of Structures

2014-2019 Assistant Professor, Faculty of Civil Engineering, University of Belgrade, Chair of
Engineering Mechanics and Theory of Structures

TEACHING EXPERIENCE

2003-2015 Bachelor courses "Strength of materials 1" and "Strength of materials 2", Faculty
of Civil Engineering, University of Belgrade, Teaching assistant

2005-2006 MSc course "Programming in Engineering", Faculty of Civil Engineering,
University of Belgrade, Teaching assistant

2008-2011 Bachelor course "Computer aided numerical structural analysis and design",
Faculty of Civil Engineering, University of Belgrade, Teaching assistant

2008-2015 Bachelor course "Basis of composite structures", Faculty of Civil Engineering,
University of Belgrade, Teaching assistant

- 2015-Present Bachelor courses “Strength of materials 1”, “Strength of materials 2”, “Basis of composite structures”, Faculty of Civil Engineering, University of Belgrade, Course leader
- 2016-Present Phd course “Theory of composite structures”, Faculty of Civil Engineering, University of Belgrade, Course leader
- May 2017 Five days MSc course “Efficient nonlinear frame analysis”, Polytechnical University of Timisoara *ERASMUS KA1 mobility action

AREAS OF SCIENTIFIC EXPERIENCE

- Nonlinear structural analysis
- Nonlinear frame elements
- Nonlinear constitutive models for steel and concrete
- Analysis of steel-concrete structures

PARTICIPATION IN NATIONAL PROJECTS

- 2004-2005 OI1749 “Contemporary problems of mechanics of deformable bodies”
- 2008-2010 TP36031 “Safety, capacity and stability of composite and steel structures in buildings and bridges and new technical regulations”
- 2011-2016 TP36046 “Effect of traffic induced vibrations on buildings and people referring to the sustainable development”
- 2011-2016 III42012 “Energy Efficiency Enhancement of Buildings in Serbia and improvement of national regulative capacity for their certification”

PARTICIPATION IN INTERNATIONAL PROJECT

- 2007-2008 VSPA program, University of California, Berkeley, CA
- July-august 2009 VSPA program, University of California, Berkeley, CA

NON SCIENTIFIC PROJECT (TEMPUS, ERASMUS, IPA...)

- July-September 2001 IAESTE program, Federal university of Ouro Preto, Minas Gerais, Brasil, , advisor prof Francisco Célio de Araújo (<http://www.escavador.com/sobre/5643859/francisco-celio-de-araujo>)
- May 2017 Erasmus+ KA1 programme with Partner Countries, giving lectures (5 days) on Efficient Nonlinear Frame Analysis at the Faculty of Civil Engineering, Politehnica University Timisoara

REWIEVER OF JOURNAL PAPERS

Engineering Structures (Elsevier), Earthquakes and Structures (Techno Press) , Frontiers in Built Environment, Steel and Composite Structures, Advances in Civil Engineering, Gradjevinar

MENTOR OF MSC STUDENTS

Nikola Blagojevic, MSc, Faculty of Civil Engineering, University of Belgrade, 2016.

MEMBER OF COMMISSIONS

2019 – Present Member of national commission KS U250-3,4,9 for Steel structures, composite steel concrete structures and aluminum structures

BOOKS AND CHAPTERS

- An Efficient Beam-Column Element for Inelastic 3D Frame Analysis; Kostic M. Svetlana, Filip C. Filippou, Chin-Long Lee; Computational Methods in Earthquake Engineering; Vol 2; 2013; Springer Science+Business Media Dordrecht, pp 49-67, DOI 10.1007/978-94-007-6573-3_3, Print ISBN 978-94-007-6572-6, Online ISBN 978-94-007-6573-3
- Contribution to the “snap through” analysis; Svetlana Seizovic, Anina Sarkic, Branislav Kolundzija; Theory of structures, Faculty of Civil Engineering, University of Belgrade, 2008, pp. 233-240, ISBN 978-86-7518-074-6
- Svetlana M. Kostić and Biljana Deretic-Stojanović (2019) Exact and Approximate Methods of Analysis of Steel-Concrete Composite Beams. In: Živojin Praščević and Radenko Pejović and Ratko Salatić and Marija Nefovska-Danilović (eds.) Theory of Civil Engineering Structures. University of Belgrade - Faculty of Civil Engineering, University of Montenegro - Faculty of Civil Engineering in Podgorica, Academy of Engineering Sciences of Serbia, pp.113 -120
- Zbirka zadataka iz Otpornosti materijala (Book of worked examples of Strength of materials problems), Sasa Stosic, Svetlana M. Kostic, Akademska misao, 2018 (in Serbian)

EDITOR OF JOURNALS, PROCEEDINGS AND BOOKS

Review editor in Frontiers in Built Environment of Computational methods in Structural Engineering <https://loop.frontiersin.org/people/506751/overview>

PUBLICATIONS

International journal papers

1. Biljana Deretic-Stojanovic and Svetlana M. Kostic (2017) A simplified matrix stiffness method for analysis of composite and prestressed beams. *Steel and Composite Structures*. **24**(1), pp.53-63.
2. Svetlana M. Kostic, Filip C. Filippou, Biljana Deretic-Stojanovic (2016) Generalized plasticity model for inelastic RCFT column response. *Computers and Structures*. **168**(5), pp.56-67.
3. Svetlana M. Kostić, Filip C. Filippou (2012) Section Discretization of Fiber Beam-Column Elements for Cyclic Inelastic Response. *Journal of Structural Engineering*. **138**(5), pp.592-601.
4. Biljana Deretic-Stojanovic, Svetlana M. Kostic (2015) Matrix Stiffness Method for Composite and Prestressed Beam Analysis Using Linear Integral Operators. *Archive of Applied Mechanics*. **2015**(85), pp.1961-1981.
5. Biljana Deretic-Stojanovic, Svetlana M. Kostic (2015) Time-dependent analysis of composite and prestressed beams using the slope deflection method. *Archive of Applied Mechanics*. **2015**(85), pp.257-272.
6. Svetlana M. Kostic and Biljana Deretic-Stojanovic (2018) Bending Resistance of Composite Sections with Nonductile Shear Connectors and Partial Shear Connection. *Advances in Civil Engineering*. **2018**, pp.. DOI: 10.1155/2018/5350315

7. Nikola Blagojevic and Svetlana M. Kostic and Sasa Stosic (2017) FIBER FINITE ELEMENT IN NONLINEAR ANALYSIS OF SQUARE CFT COLUMNS. *Building materials and structures*. **60**(1), pp.31-46.
8. Svetlana Kostic and Biljana Deretic-Stojanovic (2016) Fiber element formulation for inelastic frame analysis. *Building materials and structures*. **59**(2), pp.3-13.
9. Svetlana M. Kostić, Biljana Deretić-Stojanović, Saša Stošić (2011) Redistribution Effects in Linear Elastic Analyses of Continuous Composite Steel-Concrete Beams According to Eurocode 4. *Facta universitatis, series: Architecture and Civil Engineering*. **9**(1), pp.133-145.

International conferences

1. Milica Bendić, Svetlana M. Kostić and Jelena Nikolić (2021) Continuous composite steel concrete beams with partial shear connection. In: *Conference proceedings 8th International Conference Contemporary Achievements in Civil Engineering 2021*. DOI: 10.14415/konferencijaGFS2021.14
2. Kostic M. Svetlana and Deretic-Stojanovic Biljana (2019) Comparison of different methods for viscoelastic analysis of composite beams. In: *Proceedings of 7th International Congress of Serbian Society of Mechanics*.
3. Svetlana M. Kostic and Biljana Deretic-Stojanovic (2018) Two numerical models for nonlinear analysis of CFT columns. In: *15th ASES International Congress Proceedings*.
4. Svetlana M. Kostić and Biljana Deretić-Stojanović (2018) BENDING RESISTANCE OF COMPOSITE BEAMS WITH NONDUCTILE SHEAR CONNECTORS. In: *Conference proceedings 6th international conference Contemporary Achievements in Civil Engineering 2018*. DOI: 10.14415/konferencijaGFS2018.001
5. Nikola Blagojevic and Svetlana M. Kostic (2018) Nonlinear Analysis of Square CFT Columns with Fiber Beam/Column Element. In: *16th European Conference on Earthquake Engineering - Thessaloniki 2018*. DOI: 10.1007/978-3-319-75741-4
6. Svetlana M. Kostic and Biljana Deretic-Stojanovic (2017) AN EFFICIENT MODEL FOR NONLINEAR ANALYSIS OF CIRCULAR CFT COLUMNS. In: *Proceedings: The 6th International Congress of Serbian Society of Mechanics Tara, June 19-21, 2017*.
7. Nikola Blagojevic and Svetlana M. Kostic and Predrag Blagojevic (2017) COMPARATIVE ANALYSIS OF REINFORCED CONCRETE AND CFT COLUMNS IN BUILDINGS. In: *CONFERENCE PROCEEDINGS 5th INTERNATIONAL CONFERENCE CONTEMPORARY ACHIEVEMENTS IN CIVIL ENGINEERING 2017, FACULTY OF CIVIL ENGINEERING, Subotica*.
8. Svetlana M. Kostić and Marija Lazović and Biljana Deretić-Stojanović and Saša Stošić (2014) Parametric Study of Circular CFT Column Capacity According to Eurocode 4. In: *Zbornik radova Građevinskog fakulteta u Subotici Međunarodna konferencija Savremena dostignuća u građevinarstvu br. 25*.
9. Biljana Deretić-Stojanovic and Svetlana M. Kostić and Marija Lazović (2014) Nosivost na savijanje spregnutog preseka sa parcijalnim smičućim spojem. In: *Ybornik radova 14. kongresa Društva građevinskih konstruktora Srbije*.
10. Svetlana M. Kostić, Filip C. Filippou, Biljana Deretić-Stojanović (2013) Application of Generalized Plasticity Model in Square CFT Column Analysis. In: *4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Kos Island, Greece, 12-14 June*.
11. Biljana Deretić-Stojanović, Sasa Stosic, Svetlana M. Kostić (2013) The Stiffness Matrix of the Fixed-End Composite Frame Element. In: *The 4th International Congress of Serbian Society of Mechanics, Vrnjaska Banja (Serbia), 4-7 June*.

12. Biljana Deretić-Stojanović, Svetlana M. Kostić, Saša Stošić (2012) Accuracy Evaluation of Creep and Shrinkage Calculation Methods According to EC4. *In: 4th International Conference Civil Engineering Science and Practice, Zabljak, 20-24. February.*
13. D.Šumarac, M. Đurović-Petrović, S.Čorić, Z.Perović, S.Kostić (2011) Analysis of Serbian Rural Mountain House with Respect to Energy Efficiency. *In: Third Regional Conference Industrial Energy and Environmental Protection (IEEP 11), Kopaonik, 21-25. jun.*
14. S. Kostić, B. Deretić-Stojanović, S. Stošić (2011) Effects of Creep and Shrinkage on Deflections of Continuous Composite Beams. *In: Proceedings of Abstracts IConSSM 2011, The 3rd International Congress of Serbian Society of Mechanics, Vlasina Lake (Serbia), 5-8 July.*
15. S.Kostić, F.C. Filippou, C-L. Lee (2011) An efficient beam-column element for nonlinear 3D frame analysis. *In: III ECCOMAS Thematic Conference: Computational Methods in Structural Dynamics and Earthquake Engineering, 25-28 May, Corfu, Greece.*
16. Biljana Deretić-Stojanović, Svetlana Kostić, Saša Stošić (2011) Resistance of Composite Column to Compression and Bending. *In: Proceedings of the 14th International Symposium of MASE, Struga, Makedonija, 28.09-1.10.2011..*
17. Nenad Marković, Biljana Deretić-Stojanović and Svetlana Kostić (2010) Analiza i poređenje nacionalnih aneksa pojedinih zemalja za Evrokod 4 EN 1994-1-1. *In: 13. kongres Društva građevinskih konstruktora Srbije.*
18. S.Kostić, B.Deretić-Stojanović (2010) Proračun skupljanja i tečenja pri analizi spregnutih kontinualnih nosača prema ES4. *In: Zbornik radova Internacionalnog naučno-stručnog skupa Građevinarstvo nauka i praksa, 15-19. februar 2010, Žabljak, Crna Gora.*
19. N. Marković, S.Kostić (2010) Uvod u proračun spregnutih konstrukcija pri dejstvu požara prema Evrokodu. *In: Zbornik radova Internacionalnog naučno-stručnog skupa Građevinarstvo nauka i praksa, 15-19. februar 2010, Žabljak, Crna Gora.*
20. S. Kostić, F.C. Filippou, C-L. Lee (2009) Evaluation of resultant plasticity and fiber beam-column elements for the simulation of the 3D nonlinear response of steel structures. *In: COMPDYN2009, 2nd International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, 22-24 June, Island of Rhodes, Greece.*
21. B. Deretić-Stojanović, S. Kostić (2009) Creep and shrinkage analysis according to EC4. *In: 13th International MASE Symposium, 14-17 October, Ohrid, Macedonia.*
22. S. Kostić, B. Deretić-Stojanović (2009) Cracking of concrete effects in continuous composite beam analysis according to EC4. *In: 2nd International Congress of Serbian Society of Mechanics (IConSSM2009), 1-5 June, Palić (Subotica), Serbia.*
23. S. Kostić, C-L. Lee, F.C. Filippou (2008) Evaluation of resultant plasticity and fiber beam-column elements for the simulation of the nonlinear response of steel structures. *In: International Scientific Symposium Modeling of Structures., 13-15 November, Mostar, Bosnia and Herzegovina.*
24. S. Seizović, B.Deretić-Stojanović (2007) Nonlinear Effects in Linear Elastic Continuous Composite Steel Concrete Beam Analysis. *In: 1st International Congress of Serbian Society of Mechanics, 10-13th April 2007, Kopaonik.*
25. Svetlana Seizović, Biljana Deretić-Stojanović (2006) Klase poprečnih preseka spregnutih nosača. *In: Internacionalni naučno-stručni skup: Građevinarstvo- nauka i praksa, Žabljak, 20-24. februar 2006.*

National journals

1. Marija Lazović, Biljana Deretić-Stojanović, Svetlana Kostić, Saša Stošić (2013) Analiza nostivosti kružnih CFT stubova prema Evrokodu 4. *Izgradnja. 67(11), pp.455-460.*

2. Biljana Deretić-Stojanović, Svetlana Kostić, Saša Stošić (2011) Proračun spregnutih stubova od čelika i betona. *Građevinski materijali i konstrukcije*. **64**(1), pp.62-79.
3. Svetlana Kostić, Biljana Deretić-Stojanović, Saša Stošić (2011) Prilog proračunu spregnutih stubova od čelika i betona. *Građevinski materijali i konstrukcije*. **64**(2), pp.3-16.
4. Biljana Deretić-Stojanović, Svetlana Kostić, Nenad Marković (2010) Proračun podužnog smicanja u betonskoj ploči spregnutog nosača prema EC4. *Zbornik radova građevinsko-arhitektonskog fakulteta, Univerzitet u Nišu*. **2010**(25), pp.57-64.