



Podgorica, 05.02.2021. godine  
Broj: 208

**UNIVERZITET CRNE GORE**  
**Odboru za doktorske studije**  
**Senatu**

U prilogu vam dostavljamo predloge Vijeća Građevinskog fakulteta za imenovanje mentora studentima: mr Ivanu Mrdaku, mr Petru Subotiću, mr, Ivani Drobnjak, mr Borku Miladinoviću i mr Maji Laušević, kao i svu potrebnu dokumentaciju.

S poštovanjem,



УНИВЕРЗИТЕТ ЦРНЕ ГОРЕ  
ГРАЂЕВИНСКИ ФАКУЛТЕТ - ПОДГОРИЦА  
Број 162  
29.01.2021.  
год

Na osnovu člana 64. Statuta Univerziteta Crne Gore i člana 29. Pravila doktorskih studija Univerziteta Crne Gore, Vijeće Građevinskog fakulteta u Podgorici na sjednici održanoj 29.01.2021.godine, utvrdilo je sljedeći

### PREDLOG

Predlaže se Odboru za doktorske studije Univerziteta Crne Gore, da prof. dr Zvonka Tomanovića, dipl.inž.građ., redovnog profesora Građevinskog fakulteta Univerziteta Crne Gore, imenuje za mentora i prof. dr Borisu Jeremića, dipl.inž.građ., redovnog profesora Univerziteta u Davisu (SAD), za komentatora za izradu doktorske disertacije studenta mr Borka Miladinovića.

#### Obrazloženje

Imajući u vidu da prof. dr Zvonko Tomanović i prof. dr Boris Jeremić, ispunjavaju uslove propisane članom 29. Pravila doktorskih studija Univerziteta Crne Gore, utvrđen je predlog kao u dispozitivu.

- VIJEĆE GRAĐEVINSKOG FAKULTETA U PODGORICI -





## MENTORSTVO

Kandidat: Ime i prezime	Borko Miladinović		
ПРЕДЛОЖЕНИ МЕНТОР/И			
Prvi mentor	Titula, ime i prezime Prof.dr Zvonko Tomanović	Ustanova i država Univerzitet Crne Gore, Crna Gora	Naučna oblast Грађевinarstvo – геотехника
Drugi mentor (komentor)	Prof.dr Boris Jeremić	University of California, Davis, USA	Грађевinarstvo – геотехника
Sjednica Vijeća organizacione jedinice na kojoj je izvršeno predlaganje mentora	29.01.2021.		
КОМПЕТЕНЦИЈЕ МЕНТОРА (pet objavljenih rada u relevantnim časopisima)			
Prvi mentor	1	Tomanović Z.: <i>Rheological model of soft rock creep based on the tests on marl</i> , Mechanics of Time-Dependent materials, Vol. 10, Issue 2, 2006, pp. 135-154. ISSN: 1385-2000. ( <a href="https://doi.org/10.1007/s11043-006-9005-2">https://doi.org/10.1007/s11043-006-9005-2</a> )	
	2	Tomanović Z.: <i>Influence of <math>K_o</math> on the creep properties of marl</i> , Acta Geotechnica Slovenica, Vol. 6, Issue 2, 2009, pp. 15-29. ISSN 1854-0171. ( <a href="http://www.fg.uni-mb.si/journal-agc/AGS_2009-2_article_2.pdf">http://www.fg.uni-mb.si/journal-agc/AGS_2009-2_article_2.pdf</a> )	
	3	Tomanović Z.: <i>The stress and time dependent behaviour of soft rock</i> , Gradevinar, 64 (2012) 12, pp.993-1007. ISSN 0350-2465. ( <a href="https://doi.org/10.14256/JCE.815.2012">https://doi.org/10.14256/JCE.815.2012</a> )	
	4	Tomanović Z.: <i>Initial and time-dependent deformations in marl around the small circular opening</i> , Gradevinar, 66 (2014) 12, pp.1087-1096. ISSN 0350-2465. ( <a href="https://doi.org/10.14256/JCE.1120.2014">https://doi.org/10.14256/JCE.1120.2014</a> )	
	5	Tomanović Z., Miladinović B., Živaljević S.: <i>Criteria for defining the required duration of a creep test</i> , Canadian Geotechnical Journal, 2015, 52(7), pp.883–889. ISSN 0008-3674. ( <a href="https://doi.org/10.1139/cgj-2014-0097">https://doi.org/10.1139/cgj-2014-0097</a> )	
Drugi mentor (komentor)	1	Yang, H., Kumar Sinha, S., Feng, Y., McCallen, B.D. and Jeremić, B. (2018) "Energy Dissipation Analysis of Elastic-Plastic Materials" <i>Computer Methods in Applied Mechanics and Engineering</i> , Vol. 331, pp. 309-326, ISSN 0045-7825. ( <a href="https://doi.org/10.1016/j.cma.2017.11.009">https://doi.org/10.1016/j.cma.2017.11.009</a> )	
	2	Karapiperis, K., Sett, S., Levent Kavvas, M. and Jeremić, B. (2016) "Fokker-Planck linearization for non-Gaussian stochastic elastoplastic finite elements" <i>Computer Methods in Applied Mechanics and Engineering</i> , Vol. 307, pp. 451-469, ISSN 0045-7825. ( <a href="https://doi.org/10.1016/j.cma.2016.05.001">https://doi.org/10.1016/j.cma.2016.05.001</a> )	
	3	Jeremić, B., Jie, G., Preisig, M. and Tafazzoli, N. (2009) "Time domain simulation of soil-foundation-structure interaction in non-uniform soils" <i>Earthquake Engineering and Structural Dynamics</i> , Vol. 38, Issue 5, pp. 699-718. ISSN 0098-8847. ( <a href="https://doi.org/10.1002/eqe.896">https://doi.org/10.1002/eqe.896</a> )	
	4	Jeremić, B., Cheng, Z., Taiebat, M. and Dafalias, Y. (2008) "Numerical Simulation of Fully Saturated Porous Materials" <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , Vol. 32, No. 13, pp. 1635-1660. ISSN 0363-9061. ( <a href="https://doi.org/10.1002/nag.687">https://doi.org/10.1002/nag.687</a> )	
	5	Jeremić, B., Sett, K. and Lavent Kavvas, M. (2007) "Probabilistic Elasto-Plasticity: Formulation in 1D" <i>Acta Geotechnica</i> , Vol. 2, No. 3, pp. 197-210. ISSN 1861-1125 .( <a href="https://doi.org/10.1007/s11440-007-0036-x">https://doi.org/10.1007/s11440-007-0036-x</a> )	

PODACI O MAGISTRANDIMA I DOKTORANDIMA				
	Broj magistranada		Broj doktoranada	
	trenutno	ukupno	trenutno	ukupno
Prvi mentor	0	5	1	2
Drugi mentor (komentor)	0	8	1	10
Datum i ovjera (pečat i potpis odgovorne osobe)				
U Podgorici, 29.01.2021.		 DEKAN 		

**UNIVERZITET CRNE GORE  
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**DAKANICI I NASTAVNO-NAUČNOM VIJEĆU FAKULTETA.**

Poštovani,

Obraćam Vam se sa molbom da mi za mentore pri izradi doktorske disertacije imenujete:

**Prof. dr Zvonka Tomanovića, dipl.inž.grad., redovnog profesora Univerziteta Crne Gore – mentor**  
**Prof. dr Borisa Jeremića, dipl.inž.grad., redovnog profesora Univerziteta Kalifornija u Davis-u,  
USA – dodatni mentor (komentor)**

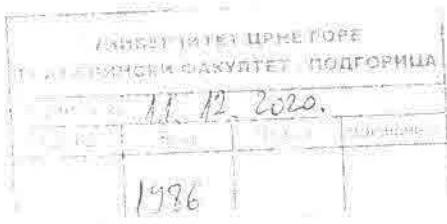
*Prof. dr Zvonko Tomanović, dipl.inž.grad. od samog početka je aktivno uključen u moj rad na postdiplomskim studijama. Kod profesora Tomanovića sam položio tri predmeta na magistarskim studijama i on je bio mentor mog magistarskog rada. Takođe, kod profesora Tomanovića sam položio i dva predmeta na doktorskim studijama. Upravo je profesor Tomanović predložio, a što sam ja sa zadovoljstvom prihvatio, da tema doktorske disertacije bude vezana za interakciju tlo-šipovi-konstrukcija. Ovom problematikom se teorijski, eksperimentalno i praktično profesor Tomanović bavio u prethodnoj deceniji svog profesionalnog rada. Kada su istraživanja eksperimentalnog tipa u pitanju profesor Tomanović ima veliko iskustvo stečeno prije svega kroz sopstvena istraživanja koja je sprovodio na Građevinskom fakultetu u Podgorici.*

*Prof. dr Boris Jeremić, dipl.inž.grad. je ekspert u oblasti teorije konstrukcija i numeričkih metoda. Centralno mjesto u njegovom istraživačkom radu zauzima geotehničko zemljotresno inženjerstvo, što se može i vidjeti na osnovu priloženog dijela njegove veoma bogate biografije i bibliografije. Profesor Jeremić je sa saradnicima razvio poseban softver (omogućava statičku i dinamičku analizu interakcije tlo-konstrukcija) pod nazivom „Realistic Earthquake Soil Structure Interaction – REAL ESSI”, koji je spremjan da mi ustupi u istraživačke svrhe. Korišćenje ovog softvera će omogućiti adekvatnu numeričku analizu interakcije tlo-šipovi-konstrukcija pri seizmičkim dejstvima, što se na adekvatan način ne može postići korišćenjem komercijalnih softverskih paketa.*

Prof. dr Boris Jeremić, dipl.inž.grad. je prihvatio poziv za saradnju, što za mene lično predstavlja veliku čast i zadovoljstvo, a za Fakultet priliku za proširenje međunarodne saradnje. Zbog pravila koje važe na njegovom matičnom univerzitetu, zvanično saradnja sa profesorom Jeremićem može biti ostvarena samo na način da on bude komentor (eng. co-advise) moje doktorske disertacije.

Uz ovu molbu prilažem sljedeću dokumentaciju:

- Uvjerenje o položenim ispitima na doktorskim studijama;
- Saglasnost o prihvatanju funkcije mentora prof. dr Zvonka Tomanovića, dipl.inž.grad.;
- Odluku o izboru u zvanje redovnog profesora dr Zvonka Tomanovića, dipl.inž.grad.;
- Kratku biografiju sa osnovnom bibliografijom prof. dr Zvonka Tomanovića, dipl.inž.grad.;
- Saglasnost o prihvatanju funkcije komentatora prof. dr Borisa Jeremića, dipl.inž.grad.;
- Potvrdu da je prof. dr Boris Jeremić, dipl.inž.grad. zaposlen kao redovni profesor na Univerzitetu Kalifornija u Davis-u, USA;
- Kratku biografiju sa osnovnom bibliografijom prof. dr Borisa Jeremića, dipl.inž.grad.



Doktorand:

Mr Borko Miladinović, dipl.inž.grad

*Miladinović Borko*

U Podgorici, decembar 2020. godine

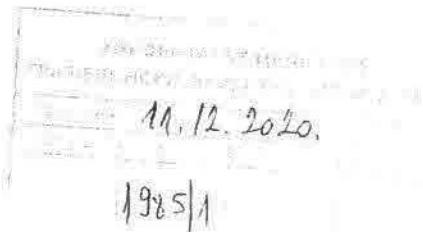
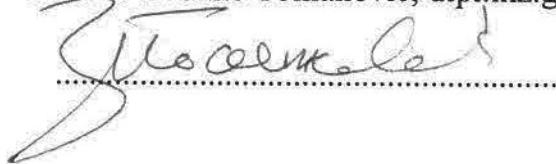
**UNIVERZITET CRNE GORE  
GRAĐEVINSKI FAKULTET U PODGORICI**

***Naziv predmeta: SAGLASNOST O PRIHVATANJU FUNKCIJE MENTORA***

Sa posebnim zadovoljstvom prihvatom funkciju mentora doktorandu mr Borku Miladinoviću, dipl.inž.građ., saradniku u nastavi na grupi predmeta iz Geotehnike.

Za obavljanje funkcije mentora na doktorskim studijama ispunjavam sve uslove propisane Statutom Univerziteta Crne Gore.

Prof. dr Zvonko Tomanović, dipl.inž.građ.



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Универзитет Црне Горе,  
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Подгорица, Црна Гора

03 Децембар, 2020

Сагласност о ко-менторству

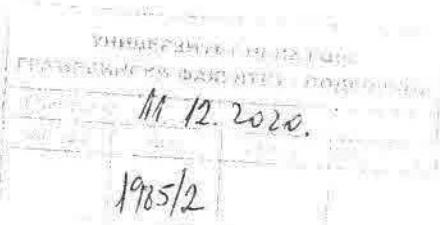
Сагласан сам да будем ко-ментор за израду докторске тезе за дипломираног грађевинског инжењера, магистра техничких наука, господина Борка Миладиновића.

Ако вам требају додатне информације, можете ме контактирати емајлом ([jeremic@ucdavis.edu](mailto:jeremic@ucdavis.edu)) или телефоном 1-530-754-9248.

С поштовањем

A handwritten signature in black ink, appearing to read "Борис Јеремић".

Борис Јеремић



# УНИВЕРЗИТЕТ ЦРНЕ ГОРЕ

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Број: 08-487  
Датум, 26. 03. 2015 г.

Ref: \_\_\_\_\_  
Date: \_\_\_\_\_

На основу члана 72 stav 2 Zakona o visokom obrazovanju (Službeni list Crne Gore br. 44/14) i člana 32 stav 1 tačka 9 Statuta Univerziteta Crne Gore, Senat Univerziteta Crne Gore, na sjednici održanoj 26. marta 2015. godine, donio je

## O D L U K U O IZBORU U ZVANJE

Dr ZVONKO TOMANOVIĆ bira se u akademsko zvanje **redovni profesor Univerziteta Crne Gore** za predmete Mehanika tla i stijena, Fundiranje i Tuneli i podzemne konstrukcije, na osnovnom akademском studijskom programu Građevinarstvo, na Građevinskom fakultetu Univerziteta Crne Gore.



## BIOGRAFIJA PROF. DR ZVONKO TOMANOVIĆ

Rođen 25. 05. 1965. godine u Pljevljima. Osnovnu školu završio u Pljevljima, a srednju građevinsku školu u Titogradu. Na Građevinski fakultet Univerziteta "Veljko Vlahović" u Titogradu upisao se 1984. godine. Nakon upisa Fakulteta proveo godinu dana u JNA. Diplomirao 1990. godine sa prosječnom ocjenom 8.00, na konstruktivnom usmjerenu, sa temom iz predmeta Tuneli i podzemne konstrukcije pod naslovom "Dovodni tunel Komarnica - Nikšić".

Poslijediplomske studije upisao je 1990 godine na Građevinskom fakultetu Univerziteta u Beogradu, na smjeru za Građevinsku geotehniku. Magistarski rad, pod nazivom "Analiza interakcije podgradne konstrukcije vertikalnog okna i stijenske mase", odbranio je u oktobru 1996. godine.

U maja 1999. godine započeo je izučavanja vremenski zavisnih deformacija stijene kroz sopstveno eksperimentalno istraživanje. U junu 2002. godine, na Građevinskom fakultetu u Podgorici, odobrena mu je tema doktorske disertacije pod naslovom "Vremenski zavisne deformacije stijene oko tunelskog iskopa". Doktorsku disertaciju odbranio je 11. juna 2004. godine

U okviru studijskih boravaka boravio je na nekoliko univerziteta i instituta među kojima su: TU Aachen, EPFL Losan, Imperial College London, TU Graz, TU Wien.

Znanje stranih jezika: engleski, francuski.

### PODACI O ZAPOSLENJIMA I IZBORIMA U ZVANJE

Radni odnos je zasnovao 01. januara 1992. godine u Društvenom preduzeću za građevinski nadzor i laboratorijska ispitivanja – Podgorica, gdje je radio na poslovima kontrole kvaliteta građevinskih materijala i nadzoru pri izvođenju radova na putevima.

Od 01. maja 1993. godine zaposlen je na Građevinskom fakultetu u Podgorici u zvanju saradnika na grupi predmeta za građevinsku geotehniku.

Od juna 1997. godine zaposlen je na Građevinskom fakultetu u Podgorici u zvanju asistenta na grupi predmeta za građevinsku geotehniku: Mehanika tla, Fundiranje i Tuneli i podzemne konstrukcije.

U zvanje docenta Univerziteta Crne Gore izabran je u novembru 2004. godine (odлуka br 01-2527, od 10.08.2004. godine) za oblast Građevinska geotehnika za predmete: Mehanika tla i stijena, Fundiranje i Tuneli i podzemne konstrukcije na Građevinskom fakultetu u Podgorici.

U zvanje vanrednog profesora Univerziteta Crne Gore izabran je u novembru 2009. godine (odлуka br 1085, od 22.10.2009. godine) za predmete: Mehanika tla i stijena, Fundiranje i Tuneli i podzemne konstrukcije na Građevinskom fakultetu u Podgorici.

U zvanje redovnog profesora Univerziteta Crne Gore izabran je u martu 2015. godine (odлука br 08-787, od 26.03.2015. godine) za predmete: Mehanika tla i stijena, Fundiranje i Tuneli i podzemne konstrukcije na Građevinskom fakultetu u Podgorici.

**Dr Zvonko Tomanović, redovni profesor**

**PREGLED NAJAVAŽNIJIH REFERENCI**

**1. Radovi koji se nalaze u časopisima koji se nalaze u međunarodnim bazama podataka - radovi sa SCI/SCIE liste**

- 1. Tomanović Z.** (2006) „Rheological model of soft rock creep based on the tests on marl”, Int. Journal, Mechanics of Time-Dependent Materials, ISSN 1395-2000, Springer, pp. 135-154.
- 2. Tomanović, Z.** (2009) „Influence of Ko on creep properties of marl”, Int. Journal, Acta Geotechnica Slovenica, ISSN 1854-0171.
- 3. Tomanović, Z.** (2012) „Ponašanje mekih stijena ovisno naprezanjima i vremenu / The stress and time dependent behaviour of soft rock”, Građevinar- Civil Engineer, 12, pp. 993-1007, ISSN 0350-2465.
- 4. Tomanović, Z.** (2014) „Effects of the soft rock pre-consolidation on time-dependent deformations around the tunnel excavation”, Technical Gazette, ISSN 1330-3651.
- 5. Živaljević, S. and Tomanović, Z.** (2014) „Experimental research of the effects of pre-consolidation on the time-dependent deformations – creep of marl”, Mechanics of Time Dependent materials, ISSN: 1385-2000 (MTDM-D-14-00040R1, DOI: 10.1007/s11043-014-9250-8).
- 6. Tomanović, Z., Miladinović, B. and Živaljević, S.** (2014) „Criteria for defining the required duration of the creep test”, Canadian Geotechnical Journal, ISSN 0008-3674.
- 7. Tomanović, Z.** (2015) „Initial and time-dependent deformations in marl around the small circular opening”, Građevinar / Civil Engineer, ISSN 0350-2465
- 8. Ivanović, B., Gorunović, N. and Tomanović, Z.** (2014) „Istraživanje dužine puta preticanja u realnom saobraćajnom toku / Research on the length of passing distancein the real traffic flow”, Građevinar- Civil Engineer, 9, pp. 823-830, ISSN 0350-2465.
- 9. Kozubal, J., Tomanović, Z. and Živaljević, S.** (2016) „The soft rock socketed monopile with creep effects – a reliability approach based on wavelet neural networks”, Archives of Mining Sciences, Vol. 61, Issue 3, pp. 571-585.

**2. Radovi objavljeni u časopisima koji se ne nalaze u bazi podataka, a imaju redovnu međunarodnu distribuciju i rezime na stranom jeziku**

- 10. Tomanovic Z.** (2007) „Rheological model of matrix of soft rock creep”, Materials and Stucture, 1-2, pp. 3-19, YU-ISSN 0543-0798.
- 11. Tomanovic Z.** (2009) „Soft Rock Hardening After the Long-term Compression and Softening after Cyclic Load”, Materials and Stucture, vol. 2, pp. 3-15, YU-ISSN 0543-0798.
- 12. Tomanovic Z.** (2011) „Ispitivanje dozvoljene nosivosti vertikalnih šipova na horizontalnastatička opotrećenja na dokovima marine za mega jahte Porto Montenegro Tivat, Crna Gora / Testing of allowable bearing capacity of vertical piles under lateral static load on the docks of the mega-yacht marina Porto Montenegro Tivat, Montenegro”, Materijali i konstrukcije – Materials and Stucture, , 3, pp. 65-81, YU-ISSN 0543-0798.
- 13. Tomanovic Z.** (2014) „Testiranje fenomena puzanja meke stijene / Testing of creep phenomena on soft”, Materijali i konstrukcije – Materials and Stucture, 3, pp. 21-42, YU-ISSN 0543-0798.
- 14. Tomanovic Z.** (2015) „Methods for predicting impact of ground vibrations induced by pile driving on the old masonry wall buildings and their monitoring”, Scientific Journal of Civil Engineering, ISSN 1857-839X

**3. Radovi objavljeni u domaćim časopisima**

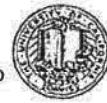
- 15. Tomanovic Z.** (2012) „Uzroci nastanka oštećenja starih tunela i sanacioni radovi u tunelima u Crnoj Gori / Causes of the damages of old tunnels and rehabilitation of tunnels in Montenegro”, Transportna infrastruktura i trasport, 3, p.p 31-43, ISSN 2232-9676.

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December 3, 2020

To Whom It May Concern,

This is to confirm that Boris Jeremic is a fulltime Professor at the University of California, Davis in the Department of Civil and Environmental Engineering. In addition to his current professorial responsibilities at UC Davis, he plans to co-advise graduate students at other universities.

Please do not hesitate to contact me if you have additional questions about his employment.

Regards,

A handwritten signature in black ink that appears to read "Brooke Noonan".

Brooke Noonan  
Chief Administration Officer  
Department of Civil & Environmental Engineering  
University of California, Davis  
2001A Ghausi Hall  
Davis, CA 95616  
530-752-1434  
[benoonan@ucdavis.edu](mailto:benoonan@ucdavis.edu)

# Boris Jeremić

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Professor

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University of California

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Phone: 1-530-754-9248

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Faculty Scientist

Earth and Environmental Sciences Area

Lawrence Berkeley National Laboratory

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Phone: 1-510-486-4926

Email: bjeremic @lbl.gov

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Consulting Engineer

Davis, California, 95616, U.S.A.

Email: jeremic00 @ gmail.com

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## 1 Research Interests

Primary research interests are related to modeling, simulation and analysis of static and dynamic, elastic and inelastic, deterministic and probabilistic behavior of engineering solids and structures. Focus is on rational computational mechanics formulation, efficient implementation, verification, validation and development of practical applications. Particular interest is in development and use of methods that reduce epistemic, modeling uncertainty. Further, propagation of aleatory uncertainties, that is, time domain modeling and simulation of behavior of inelastic solids and structures with uncertain material and uncertain loading, is of interest as well. Current work is on development and use of high performance computational systems for realistic modeling and simulation of static and dynamic, elastic and inelastic, deterministic and probabilistic, behavior of earthquakes, soils, structures and their interaction. The Real-ESSI Simulator System (<http://real-essi.info>), is an example of such a system.

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## 2 Teaching Interests

Teaching interests are closely related to my research activities, focusing on theoretical, computational and applied aspects of mechanics on both undergraduate and graduate levels. In particular, recent teaching is related to:

Theoretical and computational, deterministic and probabilistic elastic and inelastic mechanics

Application of models and numerical simulations to solving practical civil engineering problems

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## 3 Education

**Doctor of Philosophy** Degree in Civil Engineering at the University of Colorado at Boulder, Department of Civil, Environmental and Architectural Engineering, July 1997. Thesis title: "*Finite Deformation Hyperelasto-plasticity of Geomaterials*", thesis Advisor Professor Stein Sture.

**Master of Science** Degree in Civil Engineering at the University of Colorado at Boulder, Department of Civil, Environmental and Architectural Engineering, May 1994. Thesis title "*Implicit Integration Rules in Elasto-plasticity: Theory and Implementation*", thesis Advisor Professor Stein Sture.

**Diploma Engineer** Degree in Civil Engineering at Belgrade University, The Faculty of Civil Engineering, Engineering Mechanics and Theory of Structures Department, Belgrade, Yugoslavia, July 1989. Diploma Thesis: *Dynamic Analysis of Axisymmetric Solids Subjected to Non-Symmetric Loading by the Finite Element Method*", thesis Advisor Professor Miodrag Sekulović.

## 4 Academic Experience

### Current

**Professor**, Department of Civil and Environmental Engineering, University of California, Davis, California, USA, July 2009-pres.

**Faculty Scientist**, Earth and Environmental Sciences Area, Lawrence Berkeley National Laboratory, Berkeley, California, USA, August 2010-pres.

### Past

**Visiting Professor**, Department of Civil, Environmental and Geomatic Engineering, Swiss Federal Institute of Technology, D-BAUG, ETH, Zürich, CH, January 2020 - June 2020.

**Visiting Professor**, University of Kragujevac, Faculty of Mechanical Engineering, Kragujevac, Serbia, June 2009-2017

**Visiting Professor**, University of Belgrade, Faculty of Civil Engineering, Belgrade, Serbia, March 2008-June 2012.

**Visiting Professor**, Union University, Faculty of Construction Management, Graduate School, Belgrade, Serbia, January 2009- September 2012.

**Associate Professor**, University of California, Davis, California, USA, July 2003-June 2009.

**Assistant Professor**, University of California, Davis, California, USA, July 1999-June 2003.

**Assistant Professor**, Clarkson University, Potsdam, New York, USA, August 1997-June 1999.

**Graduate Teaching and Research Assistant**, University of Colorado at Boulder, Colorado, USA, August 1992-August 1997

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## 5 Publications

*Most publications below are available electronically (some through links to L<sup>A</sup>T<sub>E</sub>X sources and PDFs below). Copyright to material below is held by the publishers and by Authors (Boris Jeremić). Please treat this material in a way consistent with the "fair use" provisions of appropriate copyright law.*

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### Books

2. **Boris Jeremić**, Zhaojun Yang, Zhao Cheng, Guanzhou Jie, Nima Tafazzoli, Matthias Preisig, Panagiota Tasiopoulou, Federico Pisan`o, Jos'e Abell, Kohei Watanabe, Yuan Feng, Sumeet Kumar Sinha, Fatemah Behbehani, Han Yang, and Hexiang Wang.  
Nonlinear Finite Elements: Modeling and Simulation of Earthquakes, Soils, Structures and their Interaction. University of California, Davis, CA, USA; and Lawrence Berkeley National Laboratory, Berkeley, CA, USA, 2795 pages; 2019; ISBN: 978-0-692-19875-9;  
[WEB LINK to PDF](#)
1. Alain Pecker, James J. Johnson and **Boris Jeremić**,  
Seismic Soil Structure Interaction for Design and Assessment of Nuclear Installations.  
United Nations, International Atomic Energy Agency. 300 pages, 2020.

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### Book Chapters

5. John B. Rundle, James R. Holliday, William R. Graves, Paul B. Rundle, **Boris Jeremić**, Sashi K. Kunath, Richard Feltstykket, Kevin Mayeda, Donald L. Turcotte, Andrea Donnellan. A Practitioner's Guide to Operational Real Time Earthquake Forecasting Chapter in a book: Applied Geology of Northern California, Edited by: Robert Anderson and Horacio Ferriz, 2014.
4. **Jeremić, B.**, Sett, K., Taiebat, M. and Tafazzoli, N.. Computational Geomechanics", in Structural, Geotechnical and Earthquake Engineering, edited by Sashi K. Kunath, in Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, EOLSS Publishers, Paris, France, 2014. [<http://www.eolss.net>]
3. **Boris Jeremić**, Justin Coleman and Andrew Whitaker. Nonlinear Time Domain Soil-Structure Interaction Analysis , Chapter in Standard: ASCE-4, Seismic Analysis of Safety-Related Nuclear Structures and Commentary, 2014.
2. **Boris Jeremić**. High Fidelity Modeling and Simulation of SFS Interaction: Energy Dissipation by Design, Chapter in Book: Soil-Foundation-Structure Interaction, Edited by R.P. Orense, N. Chouw, and M. Pender, CRC Press, Taylor & Francis Group, pp 125-131, 2010.

1. Boris Jeremić and Guanzhou Jie. Parallel Soil–Foundation–Structure Computations. Chapter in Book: *Progress in Computational Dynamics and Earthquake Engineering*, Edited by M. Papadakakis, D.C. Charmpis, N.D. Lagaros and Y. Tsompanakis, Taylor and Francis Publishers, 2008.

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**Papers in Refereed Journals - SCI/ SCIE list**

LATEX sources and PDFs are linked below

28. Bruno Guidio, **Boris Jeremić**, Leandro Guidio, Chanseok Jeong, Full-waveform Inversion of SH-Wave Input Motions in a Domain Truncated by Wave-Absorbing Boundary Conditions. In review. *Soil Dynamics and Earthquake Engineering*, 2020.
27. Yuan Feng, Han Yang, Hexiang Wang, and **Boris Jeremić**, Architecture Aware Plastic Domain Decomposition in Finite Element Simulation. In review, *ASCE Journal of Computing in Civil Engineering*, 2020.
26. Han Yang, Hexiang Wang, and **Boris Jeremić**, Numerical Modeling and Validation of Earthquake Soil Structure Interaction: A 12-Story Hotel in Ventura, California. In review. *Engineering Structures*, 2020.
25. Han Yang, Hexiang Wang, and **Boris Jeremić**, An Energy-Based Analysis Framework for Soil Structure Interaction Systems. In review. *Computers & Structures*, 2020.
24. Hexiang Wang, Han Yang, Yuan Feng, Fangbo Wang and **Boris Jeremić**. Modeling and Simulation of Earthquake Soil Structure Interaction Excited by Inclined Seismic Waves. In Review, *Soil Dynamics and Earthquake Engineering*, 2020.
23. Han Yang, Hexiang Wang, Yuan Feng and **Boris Jeremić**. Plastic Energy Dissipation in Pressure-Dependent Materials. *ASCE Journal of Engineering Mechanics*, 146(3), 1-9 2020.
22. Han Yang, Yuan Feng, Hexiang Wang and **Boris Jeremić**. Energy Dissipation Analysis for Inelastic Reinforced Concrete and Steel Beam-Columns. In print, *Engineering Structures*, 2020.
21. Jos'e Abell, Yuan Feng, Han Yang, Hexiang Wang and **Boris Jeremić**. Domain Specific Language for Finite Element Modeling and Simulation. In Review, *ASCE Journal of Computing in Civil Engineering*, 2020.
20. Han Yang, Hexiang Wang, Yuan Feng, Fangbo Wang and **Boris Jeremić**. Energy Dissipation in Solids due to Material Inelasticity, Viscous Coupling, and Algorithmic Damping. In print, *ASCE Journal of Engineering Mechanics*, 2020.
19. Zhiguang Zhou, Xiaodong Wei, Zheng Lu, and **Boris Jeremić**. Influence of Soil-Structure Interaction on performance of a super tall building using a new eddy-current tuned mass damper. In Print, *The Structural Design of Tall and Special Buildings*, 2018.
18. Federico Pisan'o and **Boris Jeremić**. Simulating stiffness degradation and damping in soils via simple visco-elastic-plastic model. *Soil Dynamics and Geotechnical Earthquake Engineering*, Vol, 63, Pages 98-109, August 2014.

17. Kallol Sett, Berna Unutmaz, Kemal "Onder Cetin, Suzana Koprivica and **Boris Jeremić**. Soil Uncertainty and its Influence on Simulated  $G/G_{max}$  and Damping Behavior. *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, Volume 137, Issue 3, pp 218-226, March, 2011.
16. Mahdi Taiebat, **Boris Jeremić**, Yannis F. Dafalias, Amir M. Kaynia, and Zhao Cheng. Propagation of Seismic Waves through Liquefied Soils. *Soil Dynamics and Earthquake Engineering*, No. 30, pp 236-257, 2010.
15. Zhao Cheng and **Boris Jeremić**. Numerical Simulations of Piles in Liquefied Soils. *Soil Dynamics and Earthquake Engineering*, No. 29, pp 1405-1416, 2009.
14. Hadi Shahiri, Ali Pak, Mahdi Taiebat and **Boris Jeremić**. Evaluation of Variation of Permeability in Liquefiable Soil under Earthquake Loading. In print, *Soil Dynamics and Earthquake Engineering*, 2011.
13. **Boris Jeremić**, Zhao Cheng, Mahdi Taiebat and Yannis Dafalias. Numerical Simulation of Fully Saturated Porous Materials. *International Journal for Numerical and Analytical Methods in Geomechanics*, Volume 32, No. 13, pp 1635-1660, 2008.
12. Kallol Sett, **Boris Jeremić** and M. Levent Kavvas. The Role of Nonlinear Hardening in Probabilistic Elasto-Plasticity. *International Journal for Numerical and Analytical Methods in Geomechanics*, Vol 31, No. 7, pp 953-975, 2007.
11. Kallol Sett, **Boris Jeremić**, and M. Levent Kavvas. Probabilistic Elasto-Plasticity: Solution and Verification in 1D. *Acta Geotechnica*, Volume 2., No. 3. pp 211-220, October 2007.
10. **Boris Jeremić**, Kallol Sett and M. Levent Kavvas. Probabilistic Elasto-Plasticity: Formulation in 1D. *Acta Geotechnica*, Volume 2., No. 3. pp 197-210, October 2007.
9. Zhaohui Yang and **Boris Jeremić**. Study of Soil Layering Effects on Lateral Loading Behavior of Piles *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, Volume 131, No. 6, June 2005, pp. 762-770.
8. **Boris Jeremić**, Sashi Kunnath and Feng Xiong. Influence of Soil-Structure interaction on Seismic Response of Bridges. *Engineering Structures*, Volume 26, Issue 3, February 2004, pp. 391-402.
7. **Boris Jeremić**, Zhaohui Yang and Stein Sture. Numerical Assessment of the Influence of End Conditions on Constitutive Behavior of Geomaterials. *ASCE Journal of Engineering Mechanics*, Volume 130, issue 6, June 2004.
6. Zhaohui Yang and **Boris Jeremić**. Numerical Study of the Effective Stiffness for Pile Groups. *International Journal for Numerical and Analytical Methods in Geomechanics*, Volume 27, Issue 15, pp 1255-1276, Dec. 2003.
5. Zhaohui Yang and **Boris Jeremić**. Numerical analysis of pile behavior under lateral loads in layered elastic-plastic soils. *International Journal for Numerical and Analytical Methods in Geomechanics*, Volume 26, Issue 14, pp 1385-1406, Dec. 2002.

4. Boris Jeremić, Gerik Scheuermann, Jan Frey, Zhaojun Yang, Bernd Hamann, Kenneth I. Joy and Hans Hagen. Tensor Visualizations in Computational Geomechanics. *International Journal for Numerical and Analytical Methods in Geomechanics incorporating Mechanics of Cohesive–Frictional Materials*, Vol 26, Issue 10, pp 925-944, August 2002.
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2. Boris Jeremić and Kenneth Runesson and Stein Sture. Finite Deformation Analysis of Geomaterials. *International Journal for Numerical and Analytical Methods in Geomechanics incorporating Mechanics of Cohesive–Frictional Materials*, Volume 25, No. 8, pp. 809-840, 2001.
1. Boris Jeremić and Stein Sture. Tensor data objects in finite element programming. *International Journal for Numerical Methods in Engineering*, Volume 41, pages 113-126, 1998.