

# Dubravka Mijuca

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## OBRAZOVANJE

1999.	Doktor računске mehanike / Doktor prirodnih nauka, oblast Matematika i Mehanika, Matematički Fakultet, Katedra za mehaniku, Univerzitet u Beogradu, Srbija
1995.	Master primenjene mehanike / Magistar prirodnih nauka, oblast Matematika i Mehanika, Matematički Fakultet, Katedra za mehaniku, Univerzitet u Beogradu, Srbija
1989.	Diplomirani mehaničar / Diploma prirodnih nauka, oblast Matematika i Mehanika, Matematički Fakultet, Katedra za mehaniku, Univerzitet u Beogradu, Srbija

## NASTAVNO / NAUČNO ZVANJE

2007.	<b>Redovni profesor</b>	Fakultet za graditeljski menadžment Univerzitet „Union – Nikola Tesla“ Beograd, Srbija
1999.	<b>Docent</b>	Matematički Fakultet, Katedra za mehaniku, Univerzitet u Beogradu, Beograd, Srbija
1990.	<b>Asistent</b>	Matematički Fakultet, Katedra za mehaniku, Univerzitet u Beogradu, Beograd, Srbija

## STRUČNO ISKUSTVO

2019-2023	Konsultant više inostranih privrednih subjekata u oblasti inženjerstva
2014–2018	Konsultant VND - inženjering i konsalting, Beograd Srbija

<b>ČLANSTVA U STRUKOVNIM I AKADEMSKIM UDRUŽENJIMA</b>	
2020	NAFEMS – član steering komiteta, međunarodno udruženje za računsku mehaniku
2004.	Društvo za računsku mehaniku Srbije
1995	NAFEMS – međunarodno udruženje za računsku mehaniku
1990.	Društvo za mehaniku Srbije

<b>ISTRAŽIVAČKI / UMETNIČKI PROJEKTI</b>	
2009-2018	Mathematical Models and Optimization Methods with Applications, Project No. 144007, istraživač, Ministarstvo za nauku Republike Srbije
2012- 2013	Deutsche Forschungsgemeinschaft Geforderte, DFG-Projekt Schm 746/74-1, Improved toughness balance of nano particle filled polyamide composite simulation supported properties/morphology correlation, DFG Germany
2012-2013	Deutsche Forschungsgemeinschaft Geforderte, DFG Priority Programme 1420 "Biomimetic Materials Research: Functionality by Hierarchical Structuring of Materials", Theme: Numerical Simulation of Open Cell Foams in passive impact protection, , DFG Germany
2007-2010	Project PNII IDEI contract nr. 106/1 octombrie 2007. Caracterizare a bazata pecunoastere a capacitatii de amortizare a nanocompozitelor din materiale auxetices i nanotuburi de carbon. ID_247/2007. Institutul de mecanica solidelor academia. Romania
2006-2010	Implementation of the European regulative in heating and cooling of buildings No. NPEE 283011, rukovodilac projekta, Ministarstvo za nauku Republike Srbije
2003-2006	Mathematical modelling and development of methods and techniques for diagnosis of energetic efficiency in existing and new buildings. No. NPEE813-197b, rukovodilac projekta, Ministarstvo za nauku Republike Srbije
2002 – 2006	Mathematical methods and algorithms for 3d contours recognitions, No. 1645, Ministarstvo za nauku Republike Srbije, istraživač
2002 - 2006.	Development and implementation of the new reliable methods in mechanics of solid and fluids, No.1865, rukovodilac projekta, Ministarstvo za nauku Republike Srbije
2001-2005	FENet - A thematic network for promoting best practice industrial application of FE technology, Project number: GTC2 2000 33057, lokalni rukovodilac

	projekta FP5 European Union
1997-1998	Software for Continual Stress State Representation, No.I.1, 1556. Istraživač, Ministarstvo za nauku Republike Srbije
1995-1999	Contemporary Problems in Mechanics, No.04M01, istraživač, Ministarstvo za nauku Republike Srbije
1992-1995	Contemporary Problems in Mechanics, istraživač, Ministarstvo za nauku Republike Srbije

<b>NAGRADE</b>	
2015.	Best technological innovation, third place, Ministry of Science Republic of Serbia ACCBOX New sustainable methodology for the soil-pile bearing capacity using wireless measurement and FEM approach, 2015
2010	Best technological innovation, seventh place, Ministry of Science Republic of Serbia - SUPPORT, New deep foundation pit excavation procedure, 2010

<b>ODABRANE PUBLIKACIJE</b>	
Mijuca D (2021) On the numerical structural calculation methods of the space structures as a reliable replacement for expensive testing, still a commodity and why. Serbian Astrobnomical society, ISBN 978-86-80019-99-4	
Duff IS and Mijuca D (2011) <i>On accurate and time efficient solution of primal-mixed finite-element equations in multiscale solid mechanics. International journal for Numerical Methods in Biomedical Engineering</i> , 27(1):95-112, DOI: 10.1002/cnm.1296	
Mijuca D (2010) <i>On a new 3D primal-mixed finite element approach for thermal stress analysis of multi-layered geometrically multiscale structures. Finite Elements in Analysis and Design</i> . 46: 299-310, DOI: 10.1016/j.finel.2009.11.001	
Mijuca D, Ziberna A and Medjo B (2007) <i>A Novel Primal-Mixed Finite Element Approach for Heat Transfer in Solids</i> , Computational Mechanics, 39(4):367-381. DOI 10.1007/s00466-006-0034-0	
Mijuca D (2004) <i>On hexahedral finite element HC8/27 in elasticity Computational Mechanics</i> , Springer-Verlag, (33) 6:466-480 ISSN: 0178-7675	
Mijuca D, Ziberna A and Medjo B (2005) A new multifield finite element method in steady state heat analysis. <i>Thermal Science</i> , Vol. 9(1): 111-130	
Mijuca D (2006) On Dimensional Reduction in Multiscale, Finite Element and Atomistic,	

Analysis in Solid Mechanics. <i>WSEAS TRANSACTIONS on APPLIED and THEORETICAL MECHANICS</i> , 1(1):.16-25, . ISSN 1991-8747
Mijuca D, Vukobrat M and Gajic D (2003) Three-dimensional finite element method in the heat analysis of buildings, <i>Termotehnika</i> , 29(1-4) 119-134
Mijuca D, Berković M and Grozdanović I (2001) <i>Some continuous stress mixed formulations and inf-sup test</i> . Computer Assisted Mechanics and Engineering Science, Vol.8, 141-153 , ISSN1232-308X.
Mijuca D, Berković M and Drašković Z (1998) <i>A direct sparse solution of the mixed finite element equations</i> . Computer Assisted Mechanics and Engineering Science, 5:21-30, ISSN1232-308X
Mijuca D, Berković M (1994) <i>Coordinate independent stress recovery procedure</i> . The PAMM's periodical BAM 1026/94, ISSN 0133-3526
Mijuca D, Berković M (1999)On the main properties of the primal-mixed finite element formulation, <i>Facta Universitatis Series Mechanics, Automatic Control And Robotics</i> , 2(9), 903-920, ISSN 0354-2009
Mijuca D (2002) <i>On the reliability of the new finite element HC8/27</i> , Facta Universitatis Series Mechanics, Automatic Control And Robotics, 3 (12): 385-396 ISSN 0354-2009
Mijuca D (2001)A new primal-mixed 3 <sup>d</sup> finite element, Facta Universitatis Series Mechanics, Automatic Control And Robotics, 3(11):167-178 ISSN 0354
Mijuca D (2007) <i>On Primal-Mixed formulation in Elasticity and Thermoelasticity</i> , Monograph, Faculty of Mathematics University of Belgrade (2007) ISBN 86-7589-054-0
Mijuca D, Berković M. (1997) <i>Some remarks on the energy norm and Z-Z error estimator</i> . SOLID MECHANICS, Vol. LXXXVII, book 3, 254-262 YU ISBN 86-7025-263-5
Mijuca D, Maksimovic S. Book of Papers. The First International Conference on Computational Mechanics, ISBN 86-7589-042-7, 2004
Mijuca D. Primal-mixed finite element approach in solid mechanics. Faculty of Mathematics University of Belgrade, 1999, Doctoral thesis
Mijuca D, Berković M (1996) On the Numerical Integration of Z-Z type Error Indicators, Second Serbian-Greek Symposium on Solid Mechanics, Belgrade .
Mijuca D, Berković M (1997). Efficient and reliable mixed finite element analyses of solid continua, <i>Euromech Colloquium 371</i> , Bad Herrenhalb, Germany
Mijuca D, Berković M (1998) On the current state on the computational mechanics, Symposium Contemporary Mathematics, Devoted to 125 anniversary of Faculty of Mathematics and to 190 years of teaching of mathematics in Serbia
Mijuca D (2002) A Novel Stress Results In The Finite Element Analysis Of Clamped Plates Obtained by Full 3D, EnginSoft, conference and users meeting: Virtual prototyping today: industrial impact and future trends, October 12-15, Stezzano . ISBN 88-87786-01-1
Mijuca D (2006) On dimensional reduction in multiscale, finite element and atomistic, analysis in solid mechanics, , 2nd WSEAS International Conference. on APPLIED and THEORETICAL

MECHANICS (MECHANICS '06), Venice, Italy, November 20-22 <a href="http://www.worldses.org/conferences/2006/venice/mechanics">www.worldses.org/conferences/2006/venice/mechanics</a>
Mijuca D (2006) ON THE ISSUE OF MULTISCALE ROBUSTNESS IN COMPUTATIONAL MECHANICS. Seminar in honor of 60 years of founding the Mathematical Institute of Serbia, December 13- 15
Mijuca D (2007) On the Issue of Multiscale Robustness in Computational Mechanics, by Dubravka Mijuca. Minisymposia: Computational Methods in Structural Analysis and Optimization by FEM, 1st INTERNATIONAL CONGRESS OF SERBIAN SOCIETY OF MECHANICS 1st ICSSM-2007, April, 10-13 Proceedings of the 1st International Congress of Serbian Society of Mechanics, ISBN 978-86-909973-0-5, pp. 675-682. (Presentation PPS)
Mijuca D (2008) (2008) On the multiscale simulations by mixed finite element method in thermoelasticity. 6th International Conference CoNuSS-2008 of Nuclear Society of Serbia , Session Nuclear Fusion, September 22-25, Belgrade, Serbia; <a href="http://nss.vin.bg.ac.yu/CoNuSS2008.htm">http://nss.vin.bg.ac.yu/CoNuSS2008.htm</a>
Mijuca D (2009) On Reliable Continuum Mechanics Formulations in Multiscale Simulations of Solids. Plenary lecture at the 4th IASME / WSEAS International Conference on CONTINUUM MECHANICS (CM'09), Cambridge, UK, February 24-26

<b>UDŽBENICI</b>
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Velimir Simonovic, Dubravka Mijuca, (2011) Metodika nastave matematike, Zavod za udžbenike Beograd, Cobiss 184385548, ISBN 978-86-17-17503-8
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Dubravka Mijuca (2008), Uvod u Energetsku efikasnost, Univerzitet Union – Nikola Tesla
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