

Name of teacher:	Gordan Jelenić
Employed at: Since:	University of Rijeka, Faculty of Civil Engineering 10.12.2003
Academic rank: Since: In:	Professor 5/2018 Engineering Sciences / Fundamental Engineering Sciences
e-mail address, web page	gordan.jelenic@uniri.hr , https://www.croris.hr/osobe/profil/9511
Knowledge of foreign languages:	English, Slovenian, Italian
Qualifications	<ul style="list-style-type: none"> - date of birth, nationality: 12 July 1962, Republic of Croatia, - First degree obtained at: University of Rijeka, Faculty of Civil Engineering, 1986. - Master degree obtained at: University of Ljubljana, Faculty of Architecture, Civil Engineering and Geodesy, 1990. - Ph.D. degree obtained at: University of Ljubljana, Faculty of Architecture, Civil Engineering and Geodesy, 1993. - additional education: Research associate (1993-1998), Research Fellow (1999-2003) - previous employments: Građevno-projektne zavod Rijeka (1987-1990), University of Ljubljana, Faculty of Architecture, Civil Engineering and Geodesy (1990-1993), Imperial College London, Aeronautics Department (1993-2003)
List of papers published in scientific journals (in last five years)	<ol style="list-style-type: none"> 1. Grbčić Erdelj, S., Jelenić, G., Ibrahimbegović, A. Geometrically non-linear 3D finite-element analysis of micropolar continuum. <i>International Journal of Solids and Structures</i> 202 (2020) 745-764 2. Jelenić, G. Pure bending in non-linear elasticity: Closed-form 2D solution for semi-linear orthotropic material. <i>European Journal of Mechanics A/Solids</i> 90 (2021) 104289 3. Siciliano, A.F., Škec, L., Jelenić, G. Closed-form solutions for modelling the rotational stiffness of continuous and discontinuous compliant interfaces in two-layer Timoshenko beams. <i>Acta Mechanica</i> 232 (2021) 2793-2824 4. Siciliano, A.F., Škec, L., Fossetti, M., Jelenić, G. Experimental and numerical study on the compressive behaviour of partially accessible concrete columns strengthened by a layer of high-performance concrete. <i>Structures</i> 34 (2021) 4100-4112 5. Jelenić, G. Pure bending in non-linear micropolar elasticity. <i>International Journal of Mechanics and Materials in Design</i> 18 (2022) 243-265 6. Franković, T., Jelenić, G., Bjelanović, A. Material damping prediction in timber beams based on Timoshenko free-free beam model. <i>KSCE Journal of Civil Engineering</i> 26 (2022) 2315-2327 7. Tomec, J., Jelenić, G. Analysis of static frictionless beam-to-beam contact using mortar method. <i>Multibody System Dynamics</i> 55 (2022) 293-322 8. Čeh, N., Jelenić, G. Rocking stability of rigid prismatic blocks during single-wave harmonic excitation: Numerical investigation and experimental validation. <i>Engineering Review</i> 42 (2022) 149-162 9. Ranjbar, M., Škec, L., Jelenić, G., Ribarić, D. Mixed-mode delamination of layered structures modelled as Timoshenko beams with linked interpolation. <i>International Journal for Numerical Methods in Engineering</i> 124 (2023) 1773-1797

	<p>10. Siciliano, A.F., Škec, L., Jelenić, G. Closed-form solutions for two-layer Timoshenko beams with interlayer slip, uplift and rotation compliance. <i>Meccanica</i> 58 (2023) 893-918</p> <p>11. Čeh, N., Jelenić, G., Bičanić, N. Rocking Sensitivity of a Dual-Block Stack - Numerical Simulation and Experimental Evidence. <i>Earthquake Engineering and Structural Dynamics</i> 53 (2024) 366-391</p> <p>12. Tomec, J., Jelenić, G. Frictionless beam-to-beam contact: comparison of mortar and unbiased formulation in combination with Lagrange-multiplier and penalty method. <i>International Journal of Solids and Structures</i> 286-287 (2024) 112586</p> <p>13. Tomec, J., Jelenić, G. Momentum and near-energy conserving/decaying time integrator for higher-order configuration-interpolated beams on SE(3). <i>Computer Methods in Applied Mechanics and Engineering</i> 419 (2024) 116665</p> <p>14. Grbčić Erdelj, S., Ibrahimbegović, A. Jelenić, G. Incompatible-mode geometrically non-linear finite element for micropolar elasticity. <i>International Journal of Solids and Structures</i> 289 (2024) 112647</p> <p>15. Grbac, L., Jelenić, G., Ribarić, D., Grbčić Erdelj, S. Hexahedral finite elements with enhanced fixed-pole interpolation for linear static and vibration analysis of 3D micropolar continuum. <i>International Journal for Numerical Methods in Engineering</i> 125 (2024) e7440</p> <p>16. Papa Dukić, E., Grbac, L., Jelenić, G. Characteristic bending length in micropolar materials with periodic internal structure. <i>Journal of Mechanics of Materials and Structures</i> 19 (2024) 515-530</p>
--	---

List of publications which serve as a proof of teaching qualifications	As above
---	----------

Leader of the following research projects (competitive science projects)	<p>Nonlinear finite element method for mechanical problems with spatial rotations, Engineering and Physical Sciences Research Council (UK), 1.1.1999-31.12.2003, GBP 153,338.00</p> <p>Nonlinear finite element techniques for the design of flexible mechanisms, Engineering and Physical Sciences Research Council (UK), 1.10.2000-30.9.2003, GBP 63,000.00</p> <p>Improved accuracy in non-linear beam elements with finite 3D rotations, Ministarstvo znanosti, obrazovanja i sporta, 1.1.2007-31.12.2009, €28,000.00</p> <p>Configuration-dependent approximation in non-linear finite-element analysis of structures, Hrvatska zaklada za znanost (poziv IP-2013-11), 1.9.2014-31.8.2018, €130,000.00</p> <p>Fixed-pole concept in numerical modelling of Cosserats' continuum, Hrvatska zaklada za znanost (poziv IP-2018-01), 1.1.2019-31.12.2022, €130,000.00</p> <p>Joint training on numerical modelling of highly flexible structures for industrial applications, EU komisija (H2020 MSCA ITN-ETN 2019), 1.10.2019-30.9.2023, €237,367.08</p> <p>Analytical, numerical and experimental methods for identification of Cosserats' parameters of materials, Hrvatska zaklada za znanost (poziv IP-2024-05), 16.12.2024-15.12.2027, €200,000.00</p>
---	---

Participant in the following research projects (competitive science projects)	<p>Finite element techniques for rigid and flexible mechanical systems, Engineering and Physical Sciences Research Council (UK), 1.10.1994-1.4.1998</p> <p>Finite elements in non-linear dynamics, Engineering and Physical Sciences Research Council (UK), 1.4.1997-1.10.1997</p> <p>Evidence Based Characterisation of Dynamic Sensitivity for Multiblock Structures – Computational Simulation and Experimental Validation, Unity through Knowledge Fund, 1.11.2013-31.10.2015</p> <p>Assumed strain method in finite elements for layered plates and shells with application on layer delamination problems, Hrvatska zadržava za znanost, 1.3.2017-28.2.2021</p>
--	---

Supervision of PhD theses	11
----------------------------------	----

Examination of PhD theses	13
----------------------------------	----