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Employed at: **Since:**	University of Rijeka, Faculty of Civil Engineering 01.05.2009.

Academic rank: **Since:** **In:**	Associate professor 12.02.2024. Technical Sciences, BasicTechnical Sciences, Materials

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Knowledge of foreign languages:	English, German (basics)

Qualifications	**- date of birth, nationality:** 22nd April 1986, Croatian **- First degree obtained at:** University of Rijeka, Faculty of Civil Engineering, 2004. - 2009. **- Ph.D. degree obtained at:** University of Rijeka, Faculty of Civil Engineering, 2009. - 2015. **- additional education:** University of Stuttgart, IWB, IWB Laboratory, 2012.,2013.,2014., 2015.

List of papers published in scientific journals	1. Mumtaz, A.R.; **Bede Odorčić, N**.; Garro, N.; Lubej, S.; Ivanič, A.; Comite, A.; Pagliero, M.; Kravanja, G. Novel Ultra-High-Performance Concrete (UHPC) Enhanced by Superhydrophobic and Self-Luminescent Features. *Sustainability* 2024, 16, 1068. https://doi.org/10.3390/su16031068 2. **Bede Odorčić, N**., Kravanja, G. Combined Effects of Metakaolin and Hybrid Fibers on Self-Compacting Concrete. *Materials* 2022, 15 (16), 5588. DOI: 10.3390/ma15165588 3. I. Kožar, **N. Bede**, S. Mrakovčić, Ž. Božić. Verification of a fracture model for fiber reinforced concrete beams in bending. *Engineering Failure Analysis*. Volume 138, (2022), DOI: 10.1016/j.engfailanal.2022.106378 4. Kožar, Ivica; **Bede, Natalija**; Bogdanić, Anton; Mrakovčić, Silvija. Data driven inverse stochastic models for fiber reinforced concrete. **Coupled Systems Mechanics**, 10 (6) (2021), 6; 509-520 DOI:10.12989/csm.2021.10.6.509 5. **Bede, Natalija**; Grosser, Philipp; Ožbolt, Joško: Shear breakout capacity of different fastening systems. *Građevinar* 69 (2017) 12, 1093-1100, DOI: 10.14256/JCE.2168.2017 6. Ožbolt, Joško; **Bede, Natalija**; Sharma, Akanshu; Uwe, Mayer: Dynamic fracture of concrete L-specimen: Experimental and numerical study. *Engineering fracture mechanics*, 148 (2015); 27-41. DOI: 10.1016/j.engfracmech.2015.09.002 7. **Bede, Natalija**; Ožbolt, Joško; Sharma, Akanshu; Baris, Irhan: Dynamic fracture of notched plain concrete beams: 3D finite element study. *International Journal of Impact Engineering*, 77 (2015); 176-188. DOI: 10.1016/j.ijimpeng.2014.11.022

List of publications which serve as a proof of teaching qualifications	1. Kožar, **N. Bede**, S. Mrakovčić, Ž. Božić. Verification of a fracture model for fiber reinforced concrete beams in bending. *Engineering Failure Analysis*. Volume 138, (2022), DOI: 10.1016/j.engfailanal.2022.106378

	2. Kožar, Ivica; **Bede, Natalija**; Bogdanić, Anton; Mrakovčić, Silvija. Data driven inverse stochastic models for fiber reinforced concrete. Coupled Systems Mechanics, 10 (6) (2021), 6; 509-520 DOI:10.12989/csm.2021.10.6.509 3. **Bede, Natalija**, Ožbolt, Joško. Effect of dynamic loading on concrete properties. Numerički postupci. Zbornik radova mini – simpozija. Šamec, Elizabeta; Jaguljnjak Lazarević, Antonia; Gidak, Petra; Uroš, Mario (ur.), Sveučilište u Zagrebu, Građevinski fakultet, p. 105-115, (2019), https://doi.org/10.5592/CO/YODA.2019.2.5 4. **Bede, Natalija**. Numerička analiza betonske grede izložene udarnom opterećenju: utjecaj udarne površine. Zbornik radova Zajednički temelji 2017, Sveučilište u Zagrebu, Građevinski fakultet (ur. Gilja, Gordon; Haladin, Ivo; Lukačević, Ivan, ISBN: 978-953-8168-19-2, 18.-19.9.2017, Zagreb, (2017), https://doi.org/10.5592/CO/ZT.2017.27 5. Ožbolt, Joško; **Bede, Natalija**; Sharma, Akanshu; Uwe, Mayer: Dynamic fracture of concrete L-specimen: Experimental and numerical study. Engineering fracture mechanics, 148 (2015); 27-41.DOI: 10.1016/j.engfracmech.2015.09.002. 6. **Bede, Natalija**; Ožbolt, Joško; Sharma, Akanshu; Baris, Irhan: Dynamic fracture of notched plain concrete beams: 3D finite element study. International Journal of Impact Engineering, 77 (2015); 176-188.DOI:10.1016/j.ijimpeng.2014.11.022 7. **Bede, Natalija**; Numerical and experimental study of concrete fracture under dynamic loading, doctoral thesis, Rijeka, 2015. 8. **Bede, Natalija**; Ožbolt, Joško: Numeričko modeliranje betona u slučaju dinamičkog opterećenja. Zbornik radova 6. susreta Hrvatskoga društva za mehaniku (ur. Jelenić, Gordan ; Gaćeša, Maja), Rijeka: Hrvatsko društvo za mehaniku, (2014) , 43-48. 9. **Bede, Natalija**; Ožbolt, Joško; Sharma, Akanshu; Baris, Irhan: Numerical modeling of concrete beam under dynamic loads: 3D finite element analysis. Zbornik radova Građevinskoga fakulteta Sveučilišta u Rijeci 17, (2014)

Leader of the following research projects	-

Participant in the following research projects	1. Separation of parameter influence in engineering modeling and parameter identification, Project No: HRZZ 7926, Leader of the project: Professor Ivica Kožar, Croatian Science Foundation, 12.2019. - 12.2023. 2. Prefabricated buildings of almost zero energy produced in an industrial way, Leader of the project: company Tehnoplast profili d.o.o., Leader of the project at Faculty of Civil Engineerig: Professor Davor Grandić, financed by European structural and investement funds, 8.2020. - 8.2023. 3. Innovative Connector for Connecting Structural Elements Made of Thin Steel C-Profiles, Leader of the project: Asst. Prof. Paulina Krolo, financed by University of Rijeka, 6.2022. - 6.2023. 4. Modeliranje konstrukcija kao sistema s identifikacijom parametara i opterećenja, UNIRI projekt, Leader of the project: Professor Ivica Kožar, financed by University of Rijeka, Faculty of Civil Engineering, 2019. - 2022. 5. Investigation of behavior of composite panel components with integrated steel core, ZIP UNIRI projekt, Leader of the project: Asst. Prof. Paulina Krolo , financed by University of Rijeka, Faculty of Civil Engineering, 11.2020. – 11.2022. 6. Numerički model betona izloženog ekstremnim opterećenjima, Leader of the project: Professor Ivica Kožar, Leader of the project: Professor Joško Ožbolt, hrvatsko-njemački projekti MSEY-DAAD, 2015. - 2016.

	7. Multi-scale concrete model with parameter identification, Project No: IP 11-2013-9068, Leader of the project: Professor Ivica Kožar, HRZZ, 2014. - 2018. 8. Multi-rezolucijsko modeliranje konstrukcija s parametarskom identifikacijom, projekt istraživačke potpore Sveučilišta u Rijeci, Leader of the project: Professor Ivica Kožar, 2014. - 2016. 9. 3D Thermo-hygro-mechanicalmodel for concrete , Project No: 114-0000000-3145, Leader of the project: Professor Ožbolt Joško, MSEY , 2007. - 2009

Supervision of PhD theses	1

Examination of PhD theses	0