

KRATKI ŽIVOTOPIS predavača:

Dr. sc. Ivana JOVANOVIĆ, mag. ing. mech.



Ivana Jovanović je rođena 23. kolovoza 1994. godine u Čapljini, Bosna i Hercegovina. Srednjoškolsko obrazovanje je završila 2013. godine u Gimnaziji Metković. Diplomirala je strojarstvo na Fakultetu strojarstva i brodogradnje Sveučilišta u Zagrebu, smjer Inženjersko modeliranje i računalne simulacije. Tema diplomskog rada je *Numeričko modeliranje dinamičkih procesa deformacije tankih bakrenih limova*.

Tijekom studija je bila studentski demonstrator na Katedri za tehničku mehaniku Fakulteta strojarstva i brodogradnje, gdje je sudjelovala u izvođenju nastave iz kolegija Mehanika 1 i 2, Otpornost materijala, Numeričke metode u strojarstvu te Metoda konačnih elemenata.

Od 1. kolovoza 2020. godine je asistentica na Katedri za strojeve i uređaje plovniha objekata Fakulteta strojarstva i brodogradnje Sveučilišta u Zagrebu. U sklopu doktorskog studija je sudjelovala u programu akademske mobilnosti ERASMUS na Sveučilištu Strathclyde u Glasgowu, Ujedinjeno Kraljevstvo.

Doktorirala je 30. lipnja 2025. godine **summa cum laude** s doktorskim radom naslovljenim *Metoda za projektiranje energetska sustava autonomnih brodova* izrađenim uz mentorstvo prof. dr. sc. Nikole Vladimira. Od 1. rujna 2025. godine je **viša asistentica** na Katedri za strojeve i uređaje plovniha objekata Fakulteta strojarstva i brodogradnje Sveučilišta u Zagrebu.

Uz znanstvenoistraživački rad aktivno sudjeluje u nastavnim aktivnostima te je sudjelovala u pripremi i provedbi više nacionalnih i međunarodnih znanstvenih projekata, uključujući projekte Hrvatske zaklade za znanost, Horizon Europe i Interreg ADRION, kao i bilateralne hrvatsko-kineske projekte.

Koautorica je više od 30 znanstvenih radova objavljenih u međunarodnim znanstvenim časopisima i zbornicima radova znanstvenih skupova. Njezini

znanstveni radovi dostupni su na ResearchGate
(<https://www.researchgate.net/profile/Ivana-Jovanovic-14>) i ORCID
(<https://orcid.org/0000-0002-7029-2526>).

POPIS PUBLIKACIJA U MEĐUNARODNIM ZNANSTVENIM ČASOPISIMA:

- [1] **Ivana Jovanović**, Ivan Bašić, Ailong Fan, Nikola Vladimir. Integrated FTA and Monte Carlo simulation for assessing human, organizational and environmental contributions to maritime collision accidents. *Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment* (ISSN: 1475-0902). 2026. <https://doi.org/10.1177/14750902261428424>.
- [2] **Ivana Jovanović**, Maja Perčić, Momir Sjerić, Nikola Vladimir. The potential of e-fuels in the reduction of environmental footprint of a ferry. *Ships and Offshore Structures* (ISSN: 1744-5302), 2026, 1-11. <https://doi.org/10.1080/17445302.2026.2622976>.
- [3] Neven Hadžić, **Ivana Jovanović**, Nikola Vladimir. Biofouling of ships and offshore structures: research trends and future pathways. *Ocean Engineering* (ISSN: 0029-8018), Vol. 347, 2026, Paper No. 123988. <https://doi.org/10.1016/j.oceaneng.2025.123988>.
- [4] **Ivana Jovanović**, Dario Haramustek, Ailong Fan, Nikola Vladimir. Application of FMEA-BN Framework for Reliability-Centered Maintenance Analysis of Ship Systems. *Journal of Marine Science and Application* (ISSN: 1671-9433, eISSN: 1993-5048), 2026. <https://doi.org/10.1007/s11804-026-00853-2>.
- [5] **Ivana Jovanović**, Maja Perčić, Nikola Vladimir. Combined FMECA-BN analysis for reliability assessment of marine systems. *Ocean Engineering* (ISSN: 0029-8018), Vol. 341, 2025. Paper No. 122465. <https://doi.org/10.1016/j.oceaneng.2025.122465>.
- [6] Momir Sjerić, Maja Perčić, **Ivana Jovanović**, Nikola Vladimir. Carbon Footprint and Economic Analysis of LNG-Fueled Fishing Vessel Using Real Engine Performance Simulation. *Journal of Marine Science and Application* (ISSN: 1671-9433, eISSN: 1993-5048), 2025. <https://doi.org/10.1007/s11804-025-00640-5>.
- [7] **Ivana Jovanović**, Čağlar Karatuğ, Maja Perčić, Nikola Vladimir. Combined Fault Tree Analysis and Bayesian Network for Reliability Assessment of Marine Internal Combustion Engine. *Journal of Marine Science and Application* (ISSN: 1671-9433, eISSN: 1993-5048), 2025. <https://doi.org/10.1007/s11804-025-00692-7>.
- [8] **Ivana Jovanović**, Maja Perčić, Nikola Vladimir. Assessment of Human Contribution to Cargo Ship Accidents using Fault Tree Analysis and Bayesian

- Network Analysis. *Ocean Engineering* (ISSN: 0029-8018), Vol. 323, 2025. Paper No. 120628. <https://doi.org/10.1016/j.oceaneng.2025.120628>.
- [9] Maja Perčić, **Ivana Jovanović**, Ailong Fan, Nikola Vladimir. Design of Alternative Power Systems for Ferries Operating in the Adriatic Sea. *Ocean Engineering* (ISSN: 0029-8018), Vol. 319, 2025. Paper No. 120246. <https://doi.org/10.1016/j.oceaneng.2024.120246>.
- [10] Nikola Vladimir, Ivo Senjanović, **Ivana Jovanović**, Stipe Tomašević, Paul Jurišić. Direct Strength Calculation of an Aged Single-Bottom Tanker During its Towing in Waves. *Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment* (ISSN: 1475-0902, eISSN: 2041-3084), Vol. 238, No. 2, 2024. pp. 417–430. <https://doi.org/10.1177/14750902231189917>.
- [11] **Ivana Jovanović**, Maja Perčić, Ahmad BahooToroody, Ailong Fan, Nikola Vladimir. Review of Research Progress of Autonomous and Unmanned Shipping and Identification of Future Research Directions. *Journal of Marine Engineering and Technology* (ISSN: 2046-4177, eISSN: 2056-8487), Vol. 23, No. 2, 2024. pp. 82-97. <https://doi.org/10.1080/20464177.2024.2302249>.
- [12] **Ivana Jovanović**, Nikola Vladimir, Hrvoje Cajner, Maja Perčić. The Overview of Risk Analysis Methods and Discussion on their Applicability for Power System of Autonomous Ships. *TransNav – International Journal on Marine Navigation and Safety of Sea Transportation* (ISSN: 2083-6473, eISSN: 2083-6481), Vol. 18, No. 1, 2024. pp. 109–113. <https://doi.org/10.12716/1001.18.01.09>.
- [13] Maja Perčić, Marija Koričan, **Ivana Jovanović**, Nikola Vladimir. Environmental and Economic Assessment of Batteries for Marine Applications: Case Study of All-Electric Fishing Vessels. *Batteries* (ISSN: 2313-0105), Vol. 10, No. 1, 2024. Paper No. 7. <https://doi.org/10.3390/batteries10010007>.
- [14] Maja Perčić, Nikola Vladimir, Marija Koričan, **Ivana Jovanović**, Tatjana Haramina. Alternative Fuels for the Marine Sector and their Applicability for Purse Seiners in a Life-Cycle Framework. *Applied Sciences* (ISSN: 2076-3417), Vol. 13, No. 24, 2023. Paper No. 13068. <https://doi.org/10.3390/app132413068>.
- [15] **Ivana Jovanović**, Maja Perčić, Marija Koričan, Nikola Vladimir, Ailong Fan. Investigation of the Viability of Unmanned Autonomous Container Ships under Different Carbon Pricing Scenarios. *Journal of Marine Science and Engineering* (ISSN: 2077-1312), Vol. 10, No. 12, 2022. Paper No. 1991. <https://doi.org/10.3390/jmse10121991>.
- [16] Maja Perčić, Nikola Vladimir, Ailong Fan, **Ivana Jovanović**. Holistic Energy Efficiency and Environmental Friendliness Model for Short-Sea Vessels with Alternative Power Systems Considering Realistic Fuel Pathways and Workloads.

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- [17] **Ivana Jovanović**, Nikola Vladimir, Maja Perčić, Marija Koričan. The Feasibility of Autonomous Low-Emission Ro-Ro Passenger Shipping in the Adriatic Sea. *Ocean Engineering* (ISSN: 0029-8018), Vol. 247, 2022. Paper No. 110712. <https://doi.org/10.1016/j.oceaneng.2022.110712>.
- [18] Nikola Vladimir, Andro Bakica, Maja Perčić, **Ivana Jovanović**. Modular Approach in the Design of Small Passenger Vessels for Mediterranean. *Journal of Marine Science and Engineering* (ISSN: 2077-1312), Vol. 10, No. 1, 2022. Paper No. 117. <https://doi.org/10.3390/jmse10010117>.
- [19] Maja Perčić, Nikola Vladimir, **Ivana Jovanović**, Marija Koričan. Application of Fuel Cells with Zero-Carbon Fuels in Short-Sea Shipping. *Applied Energy* (ISSN: 0306-2619), Vol. 309, 2022. Paper No. 118463. <https://doi.org/10.1016/j.apenergy.2021.118463>.
- [20] Marija Koričan, Maja Perčić, Nikola Vladimir, Vladimir Soldo, **Ivana Jovanović**. Environmental and Economic Assessment of Mariculture Systems using a High Share of Renewable Energy Sources. *Journal of Cleaner Production* (ISSN: 0959-6526, eISSN: 1879-1786), Vol. 333, 2022. Paper No. 130072. <https://doi.org/10.1016/j.jclepro.2021.130072>.