

IOSUD - UNIVERSITATEA „DUNĂREA DE JOS” DIN GALAȚI

Memoriul științific al studentului doctorand

MEMORIU ȘTIINȚIFIC

Drd. Chiracu Ioana – Gabriela

Studii de doctorat

Perioada: 01.10.2022 – 01.10.2026

Conducător științific: **Prof.dr.ing. Lorena Deleanu**

Domeniul de doctorat: Inginerie mecanică

Titlul tezei de doctorat: **Caracterizarea la impact, încovoiere și tracțiune a compozitelor cu țesătură cuadriaxială din fibre de sticlă, pentru aplicații navale**

Activitate științifică

A. Lista de lucrări științifice (articole în reviste sau volume)

Lucrări indexate WoS Core Collection

1. Korosfo, S.; Deleanu, L.; Pîrvu, C.; Pelin, G.; Lom, I.V.; Cucos, A.; Rusu, T.; **Chiracu, I.G.** Mechanical Characteristics of a Recycled LDPE/HDPE/PP Polymeric Blend from Three-Point Bending Tests. *Materiale Plastice* 2026, 63(2), 39–54. <https://doi.org/10.37358/MP.26.2.75879>
2. Deleanu, L.; Pelin, G.; **Chiracu, I.G.**; Păduraru, I.; Constandache, M.; Ojoc, G.G.; Vasiliu, A.V. Rate-Dependent Tensile Behavior of Glass Fiber Composites Reinforced with Quadriaxial Fabrics, with or Without Coremat Xi3 Interlayer, for Marine Applications. *Polymers* 2025, 17, 2074. <https://doi.org/10.3390/polym17152074>, WOS:001550648900001 (Q1)
3. Cristea, G.C.; Deleanu, L.; **Chiracu, I.G.**; Boțan, M.; Ojoc, G.G.; Vasiliu, A.V.; Cantaragiu Ceoromila, A. Influence of Resin Grade and Mat on Low-Velocity Impact on Composite Applicable in Shipbuilding. *Polymers* 2025, 17, 355. <https://doi.org/10.3390/polym17030355> WOS:001418380800001 (Q1)
4. **Chiracu, I.G.**; Ojoc, G.G.; Cristea, G.C.; Boțan, M.; Cantaragiu Ceoromila, A.; Pîrvu, C.; Vasiliu, A.V.; Deleanu, L. Behavior of Composites Made of Quadriaxial Glass Fiber Fabrics and Epoxy Resin under Three-Point Bending. *Polymers* 2024, 16, 1925. <https://doi.org/10.3390/polym16131925> WOS:001269263500001 (Q1)

Lucrări indexate Scopus

1. Deleanu, L.; Cantaragiu Ceoromila, A.; Georgescu, C.; Boțan, M.; Ojoc, G.G.; **Chiracu, I.G.** Polymeric Composites: Failures in Dry Sliding on Steel. *Tribology in Industry* 2024. <https://doi.org/10.24874/ti.1621.02.24.02>

Lucrări publicate în reviste indexate BDI

1. Constandache, M.; **Chiracu, I.G.**; Pelin, G.; Cristea, G.C.; Vasiliu, A.V.; Ojoc, G.G.; Deleanu, L. Comparative Behavior under Tensile and Three-Point Bending Tests for a Composite with Quadriaxial Fabrics and Epoxy Resin. *INCAS Bulletin* 2025, 17(4), 25–41. <https://doi.org/10.13111/2066-8201.2025.17.4.3>
2. **Chiracu, I.G.**; Deleanu, L.; Ojoc, G.G.; Vasiliu, A.V.; Cristea, G.C.; Pelin, G. Effect of Coremat Xi 3 Middle Layer on Flexural Performance of Glass Fibre Composites under Different Test Rates. *INCAS Bulletin*, 2025, 17/2, pp. 3 – 11, DOI: 10.13111/2066-8201.2025.17.2.1
3. Titire Chiper, L.; Ojoc, G.G.; **Chiracu, I.G.**; Deleanu, L. The Influence of Introducing the Cohesive Zone Model in Simulating the Impact of Stratified Composites. *Journal of Engineering Sciences and Innovation* 2023, 8(1), 1–16, DOI: [10.56958/jesi.2023.8.1.1](https://doi.org/10.56958/jesi.2023.8.1.1)



C. Participări la conferințe/workshop-uri

Lucrări la conferințe internaționale

1. Chiracu, I.G.; Constandache, M.; Martin, C.M.; Cristea, G.C.; Ojoc, G.G.; Deleanu, L. Impact Tests on Schools (SCDS-UDJG), Galați, România, 11–12 June 2026.
2. Chiracu, I. G., Cristea, G. C., Cantaragiu Cioromela A., Constandache M., Ojoc G.G., Popa C., Deleanu L., Analysis of Failure Mechanisms for Impact on Composites with Quadriaxial Glass Fiber Fabric, The 12th International Conference on Advanced Concepts in Mechanical Engineering, ACME 2026, 11-14 June 2026, Iasi, Romania, https://mec.tuiasi.ro/wp-content/uploads/2026/06/Conference-Program-ACME-2026_FINAL_.pdf
3. Constandache M., Martin C.M., Pelin G., Vasiliu A.V., Popa C., Ojoc G. G., Chiracu I.G., Deleanu L., Experimental Assessment of Biaxial Non-Crimp Glass-Fiber Composites for Lightweight Resilient Structural Applications., International Conference Knowledge-Based Organization, Academia Forțelor Terestre „Nicolae Bălcescu,, Sibiu, România, 11-13 iunie 2026
4. Deleanu, L.; Cristea, G.C.; **Chiracu, I.G.**; Ojoc, G.G.; Vasiliu, A.V.; Martin, C. Influence of Impact Energy Level and Composite Thickness on Impact Characteristics. 20th International Conference “Days of Technical Sciences Academy of Romania”, Galați, România, 18–19 September 2025.
5. **Chiracu, I.G.**; Ojoc, G.G.; Păduraru, I.; Deleanu, L.; Pîrnu, C. Influence of Velocity when Simulating an Impact on a Two-Layer Quadriaxial Composite. 20th International Conference “Days of Technical Sciences Academy of Romania”, Galați, România, 18–19 September 2025.
6. Constandache, M.; **Chiracu, I.G.**; Azamfirei, V.; Pelin, G.; Ojoc, G.G.; Deleanu, L. Why is tensile testing so important for composites? EuroPolitehnicus International Innovation and Invention Show, București, România, 21–23 November 2025.
7. **Chiracu, I.G.**; Georgescu, C.; Cristea, G.C.; Ojoc, G.G.; Boțan, M.; Vasiliu, A.V.; Deleanu, L. Impact Tests for Two Composites for Marine Applications. SERBIATRIB '25, Kragujevac, Serbia, 14–16 May 2025, <http://www.serbiatrib.fink.rs/pprogramme2025.pdf>
8. **Chiracu, I.G.**; Ojoc, G.G.; Cristea, G.C.; Boțan, M.; Vasiliu, A.V.; Deleanu, L. Glass Fiber Composite for Shipbuilding Industry. International Innovations and Inventions Show – EuroPolitehnicus, București, România, 22–24 November 2024.
9. **Chiracu, I.G.**; Ojoc, G.G.; Deleanu, L. Modeling the Impact Three-Point Bending Test for a Stratified Composite. Scientific Conference of Doctoral Schools (SCDS-UDJG), Galați, România, 6–7 June 2024.

Conferințe naționale

1. Constandache M., Martin C.M., **Chiracu I.G.**, Pelin G., Deleanu L., Tensile Behavior of Biaxial ($\pm 45^\circ$) Non-Crimp Glass Fiber Composites: Influence of Test Rate and Laminate Thickness, Conferința Școlilor Doctorale, Universitatea „Dunărea de Jos”, Galați, 14 iunie 2026
2. Constandache, M.; Azamfirei, V.; **Chiracu, I.G.**; Vasiliu, A.V.; Cristea, G.C.; Pelin, G.; Martin, C.; Deleanu, L. How Important is the Matrix in a Quadriaxial Glass Fiber Composite? UgalInvent, Galați, România, 23–24 October 2025.
3. **Chiracu, I.G.**; Deleanu, L. A Review of Fatigue Life Prediction of Fiber Reinforced Composites (FRP). Scientific Conference of Doctoral Schools, Galați, România, 8–9 June 2023.
4. Titire Chiper, L.; Ojoc, G.G.; **Chiracu, I.G.**; Munteniță, C.; Deleanu, L. The Influence of Introducing the Cohesive Zone Model in Simulating the Impact of Stratified Composites. Zilele ASTR, Petroșani, România, 6–7 October 2022 (publicată în revista JESI, în 2023).

Student-doctorand

Ing. Ioana Gabriela Chiracu

