Universitatea din Craiova
Facultatea de Inginerie Electrică
Departamentul de Inginerie Electrică, Energetică şi Aerospaţială
Dr. Ing. Iurie NUCA

L I S T A
lucrărilor ştiinţifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

Efficiency of an Electric Traction System Concerning the Improvement of Electric Energy Quality and the reducing of EMI Through Multi-Domain Design of Electric Drive Systems, Including Power Converters, Doctorat în co-tutelă, Craiova, Milano, 2024.

B. Suport didactic

1. I.Nuca, *Electrotechnics Lab Guides,* Suport de laborator pentru programul de studii Calculatoare Engleză, Craiova, format electronic, 2025, Google Classroom. https://classroom.google.com/c/NzUzNjc3NTI5MTYy

2. R.Dinu, I.Nuca, *Ghid de laborator de Desen Tehnic,* Suport de laborator pentru programele de studii Ingineria Sistemelor Electroenergetice și Inginerie Electrică și Calculatoare, Craiova, format electronic, 2025, Google Classroom. https://classroom.google.com/c/ODA5NzcyNzU0ODkw

3. I.Nuca, *Suport de laborator pentru Bazele Electrotehnicii II,* Suport de laborator pentru programul de studii Ingineria Sistemelor Electroenergetice, Craiova, format electronic, 2025, Google Classroom. https://classroom.google.com/c/NzUxNTI5MzM0ODk2

C. Cărţi si capitole în cărţi

2021-2025

1. **Ilie Nuca, Iurie Nuca, Vadim Cazac.** *Acţionarea electrică reglabilă a sistemului de pompare: Indrumar metodic pentru teza de an***;** Universitatea Tehnică a Moldovei. -Chișinău: Tehnica-UTM, 2022.-56p. ISBN 978-9975-45-799-6.

D. Lucrări indexate ISI/BDI

D1. ***Reviste***

2021-2025

1. Dusan Kostic, Ileana Diana Nicolae, Iurie Nuca, Petre Marian Nicolae. “Analyzing the Influence of Harmonic Parameters on Accuracy Indices When Applying Wavelet Transform”. In Annals of the University of Craiova, Electrical Engineering series, No. 46, Issue 1, 2022; ISSN 1842-4805, pp. 69-78 - (CNCSIS B+ category journal)

2. Iurie Nuca, Ilie Nuca; Petru Todos, Vadim Cazac, Dusan Kostic, “Power Quality Indices Of Six--Phase Asynchronous Motor Drive Prototype” Annals of the Faculty of Engineering Hunedoara - International Journal of Engineering . Nov 2022, Issue 4, ISSN: 1584-2665, p171-174.

D2. ***Manifestări ştiinţifice***

2021-2025

5. I. Nuca, M.Bușe, P. -M. Nicolae and M.Ș. Nicolae, "Improving Power Quality and Electromagnetic Compatibility in Railway Electric Traction Drives: Hardware and Software Solutions," proceedings of International Conference on Electromechanical and Energy Systems (SIELMEN), Iași, Romania, 2025, (to be published).

6. D. Kostic, L. Wan, A. H. Beshir, I. Nuca, P. -M. Nicolae and F. Grassi, "Black-Box Model of a Single-Phase Industrial Variable Frequency Drive," 2024 IEEE International Symposium on Electromagnetic Compatibility, Signal & Power Integrity (EMC+SIPI), Phoenix, AZ, USA, 2024, pp. 441-445, doi: 10.1109/EMCSIPI49824.2024.10705582.

7. M. -Ș. Nicolae, F. -F. Bîzîc, N. -L. Sîrbu, I. Nucă and R. -C. Presură, "Remote Health Monitoring System to Prevent the Spread of Contagious Viruses," 2023 International Conference on Electromechanical and Energy Systems (SIELMEN), Craiova, Romania, 2023, pp. 1-4, doi: 10.1109/SIELMEN59038.2023.10290766.

8. Iurie Nuca, L. Wan, P.-M. Nicolae, A. Netoiu, A. Popescu, D.Kostic, I.-D. Nicolae, "Design of Proportional-Resonant Control for Current Harmonic Compliance in Electric Railway Power Systems," 2023 IEEE Symposium on Electromagnetic Compatibility & Signal/Power Integrity (EMC+SIPI), Grand Rapids, MI, USA, 2023, pp. 13-17, doi: 10.1109/EMCSIPI50001.2023.10241757.

9. Iurie Nuca, L. Wan, D. Kostic, P.-M. Nicolae, I.-D. Nicolae, " Comparison of the Current Harmonic Pollution of Asynchronous Motor Drives With Field Oriented Control and Direct Torque Control," in proc. of 2023 Electromagnetic Compatibility Europe Symmposium (EMC EU), Krakow, Poland, 2023, doi: 10.1109/EMCEurope57790.2023.10274291.

10. Iurie Nuca, L. Wan, P.-M. Nicolae, I.-D. Nicolae, F. Grassi and X. Wu, "Analysis of Common Mode Currents and Harmonic Pollution at Supplying Induction Motors from Static Converters with Variable Modulation Frequency," *2023 Power Quality and Electromagnetic Compatibility at Low Frequency (PQEMC-LF)*, Craiova, Romania, 2023, pp. 57-60, doi: 10.1109/PQEMC-LF58184.2023.10212014.

11. P.-M. Nicolae, M. Voinea, I. Sorin and Iurie Nuca, "About Analysis of Emissions from a Switched Mode Power Supply," 2023 Power Quality and Electromagnetic Compatibility at Low Frequency (PQEMC-LF), Craiova, Romania, 2023, pp. 49-52, doi: 10.1109/PQEMC-LF58184.2023.10211676

12. P. -M. Nicolae, I. -D. Nicolae, Iurie Nuca and M. -S. Nicolae, "Determination of Electromagnetic Noise from a Power Supply Substation of Railway Traction Systems," in Proc. 2022 IEEE International Symposium on Electromagnetic Compatibility & Signal/Power Integrity (EMCSI), Spokane, WA, USA, 2022, pp. 619-624, doi: 10.1109/EMCSI39492.2022.9889567. (Indexed in the ICI Journals Master List 2021 - ICV 2021: 100.00).

13. Adrian Hurezeanu, Iurie Nuca, Ileana Diana Nicolae, Lucian Cristian Scărlătescu, Petre –Marian Nicolae. "About the Distorting Regime Induced by an Electronic Induction Heating System". 2021 Asia-Pacific International Symposium on Electromagnetic Compatibility (APEMC), Nusa Dua - Bali, Indonesia, 2021, pp. 1-4, doi: 10.1109/APEMC49932.2021.9597162.

14. Iurie Nuca, Dusan Kostic, Petre-Marian Nicolae, Ilie Nuca*, Vadim Cazac, Marcel Burduniuc. "Harmonic Decomposition and Power Quality Analysis of a Six-Phase Induction Motor Traction Drive with Fast Fourier Transform". 2021 13th International Conference on Electromechanical and Energy Systems – online conference, pp. 433-437. 6-8 October 2021. Romania – Iași, Moldova – Chișinău, DOI: https://doi.org/10.1109/SIELMEN53755.2021.9600295

2016-2020

15. Iurie Nuca, Petre-Marian Nicolae, Ilie Nuca, Alexandr Motroi, Vitalie Eșanu, "Power Quality and Electromagnetic Interference in a Trolleybus Traction Sistem," 2020 International Symposium on Electromagnetic Compatibility - EMC EUROPE, 2020, pp. 1-5, doi: 10.1109/EMCEUROPE48519.2020.9245641.

16. Vitalie Esanu; Alexandr Motroi; Ilie Nuca; Iurie Nuca. "Electrical Buses: Development and Implementation in Chisinau Municipality, Moldova". 2019 International Conference on Electromechanical and Energy Systems (SIELMEN). 9-11 Oct 2019. Craiova-Chisinau. DOI: 10.1109/SIELMEN.2019.8905794. https://ieeexplore.ieee.org/document/8905794

17. Petru Todos ; Ilie Nuca ; Iurie Nuca. "Development of Electrotechnical Industry, Research and Education in the Republic of Moldova". 2019 International Conference on Electromechanical and Energy Systems

(SIELMEN). 9-11 Oct 2019. DOI: 10.1109/SIELMEN.2019.8905848. https://ieeexplore.ieee.org/document/8905848

18. Ilie Nuca, Marcel Burduniuc, Iurie Nuca, Ana Grigoriţa, Valeria Mirco. New opportunities for internship for the technical university of Moldova' students. 2017 International Conference on Electromechanical and Power Systems (SIELMEN). October 11-13, 2017, Iaşi, Romania/ Chişinău, Moldova. http://ieeexplore.ieee.org/document/8123352/. DOI:10.1109/SIELMEN.2017.8123352

E. Lucrări publicate în reviste şi volume de conferinţe cu referenţi (neindexate)

F. Brevete obţinute în întreaga activitate

G. Participare la proiecte de cercetare

G1. Granturi / proiecte câştigate prin competiţie naţională/internaţională

- 10/2020-09/2023 Acțiuni ITN Horizon 2020 **"European Training network Of PhD researchers on Innovative EMI analysis and power Applications: ETOPIA",** Universitatea din Craiova, România
  - Early stage researcher (cercetător la stadiu incipient)
- 01/2020-01/2023 Proiectului din cadrul Programului de Stat **"Sisteme integrate autohtone de tracţiune electrică pentru vehicule urbane de pasageri - ELTRAC"** , Universitatea Tehnică a Moldovei, Republica Moldova
  - Asistent de cercetare
- 09/2016-12/2018 Proiect instituțional UTM **„Spre o autonomie energetică a Republicii Moldova"**, Universitatea Tehnică a Moldovei, Republica Moldova
  - Asistent de cercetare
- 01/2016-12/2018 Proiect bilateral de cercetare între Universitatea Tehnică a Moldovei și Universitatea Politehnica Timișoara, Facultatea de Inginerie Hunedoara**, nr.01/RO „Sisteme performante de acţionare a vehiculelor hibride şi electrice cu o maşină sincronă axială cu două rotoare, un stator şi un singur invertor (HELSAX)",** Universitatea Tehnică a Moldovei, Republica Moldova
  - Asistent de cercetare

G2. Contracte de cercetare / consultanţă (valoare echivalentă de minim 2.000 Euro)

Data: 01.10.2025

Semnătura: