MEMORIU ȘTIINȚIFIC
Drd. Andrei-Marius TUDOSE

Studii de doctorat
Perioada: 2020 - 2025
Conducător științific: Prof.dr.ing. Constantin BULAC
Domeniu: Inginerie Energetică
Titlul tezei de doctorat: Monitorizarea și controlul sistemelor electroenergetice cu ajutorul tehnicilor de inteligență artificială

ACTIVITATEA DE ELABORARE ȘI PUBLICARE DE LUCRĂRI ȘTIINȚIFICE

ARTICOLE

Articole publicate în reviste de specialitate

1. N. Anton, C. Bulac, B. Dobrin, **A. Tudose** – „Optimal Placement Of Phasor Measurement Units Using Multi-Criteria Analysis", *U.P.B. Sci. Bull., Series C*, Vol. 86, Iss. 4, 2024
2. **A.M. Tudose**, D.O. Sidea, I.I. Picioroaga, N. Anton, C. Bulac – „Increasing Distributed Generation Hosting Capacity Based on a Sequential Optimization Approach Using an Improved Salp Swarm Algorithm", *Mathematics*, 12(1), 48, Dec. 2023
3. I. Picioroaga, M. Luca, **A. Tudose**, D. Sidea, M. Eremia, C. Bulac – "Resilience-Driven Optimal Sizing of Energy Storage Systems in Remote Microgrids", *Mathematics*, 15(22), 16002, Noi. 2022
4. D.O. Sidea, **A.M. Tudose**, I.I. Picioroaga, C. Bulac – „Two-Stage Optimal Active-Reactive Power Coordination for Microgrids with High Renewable Sources Penetration and Electrical Vehicles Based on Improved Sine−Cosine Algorithm", *Mathematics*, 11(1), 45, Dec. 2022
5. I. I. Picioroaga, **A. M**.**Tudose** , D. O. Sidea, C. Bulac – „Supply Restoration in Active Distribution Networks Based on Soft Open Points with Embedded DC Microgrids". *Mathematics*, 10(2), 211, Ian. 2022
6. I. Picioroaga, **A. M. Tudose**, D. Sidea, C. Bulac, L. Toma – „Power Supply Restoration in Active Distribution Networks with High Photovoltaic Penetration Based on Soft Open Points". *Revue roumaine des sciences techniques-serie electrotechnique et energetique*, 66(3), 181-186, Dec. 2021
7. **A. M. Tudose**, I. I. Picioroaga, D. O. Sidea,, C. Bulac and V. Boicea, "Short-term load forecasting using convolutional neural networks in COVID-19 context: The Romanian case study", *Energies*, vol. 14, Iul. 2021.
8. **A. M. Tudose**, I. I. Picioroaga, D. O. Sidea, and C. Bulac, " NEURAL NETWORKS APPLICATION IN SHORT-TERM LOAD FORECASTING", *The UPB Scientific Bulletin, Series C*, vol. 83, no. 2, Iun. 2021
9. **A. M. Tudose**, I. I. Picioroaga, D. O. Sidea, and C. Bulac, "Solving Single- and Multi-Objective Optimal Reactive Power Dispatch Problems Using an Improved Salp Swarm Algorithm," *Energies*, vol. 14, no. 5, p. 1222, Feb. 2021.

Articole publicate în volumele unor manifestări științifice

1. R. Micu, **A. Tudose**, A. Iantoc, I. Picioroaga, C. Bulac, „Electricity Price Forecasting on Day Ahead Market via a Multivariate CNN-LSTM Model", 2024 IEEE International Conference And Exposition On Electric And Power Engineering (EPEi), Iasi, Romania, oct. 17-19 2024.
2. I. Picioroaga, **A. Tudose**, D. Sidea, M Calin-Arhip, „The Optimal Placement and Sizing of Soft Open Points to Enable Distributed Generation Hosting in Southern Romania", 2024 59th International Universities Power Engineering Conference (UPEC), Cardiff, Regatul Unit, sep. 02-06 2024
3. D.O. Sidea, **A.M. Tudose**, I.I Picioroagã, N. Anton, C. Bulac, „Performace Comparison of Metaheuristic Algorithms on Solving the Optimal Power Flow in a Active Distribution Network", 2023 11th International Conference on ENERGY and ENVIRONMENT (CIEM), București, Romania, 26-27 oct. 2023
4. D.O. Sidea, I.I. Picioroagă, **A.M. Tudose**, C. Podar, N. Anton, C. Bulac, "Optimal reactive power dispatch considering load variation in distribution networks using an improved sine-cosine algorithm", 2022 International Conference and Exposition on Electrical And Power Engineering (EPE), Iași, Romania, 20-22 oct. 2022.
5. **A. Tudose**; R. Micu; I. Picioroaga; D. Sidea; A. Mandis; C. Bulac, „Power Systems Security Assessment Based on Artificial Neural Networks", 2022 International Conference and Exposition on Electrical And Power Engineering (EPE), Iași, Romania, 20-22 oct. 2022.
6. V.A. Ion; E.E. Gemil; M. Arhip-Calin; **A. Tudose**; N. Anton; G. Serițan, "A Survey of microgrid operation influence on power quality", 2022 57th International Universities Power Engineering Conference (UPEC), Istanbul, Turcia, 30 aug.-02 sep. 2022

7. D.O. Sidea, **A.M. Tudose**, I.I. Picioroagă, L. Toma, C. Bulac, „Adapted Grey Wolf Optimizer for Dynamic Economic Dispatch in a Hybrid Microgrid", 10th International Conference on ENERGY and ENVIRONMENT (CIEM), București, România, 14-15 Oct., 2021.
8. I. I. PICIOROAGA, **A. M. TUDOSE**, D. O. SIDEA, C. BULAC and L. TOMA, "Application of Soft Open Points for Increasing the Supply Restoration in Active Distribution Networks," 2021 12th International Symposium on Advanced Topics in Electrical Engineering (ATEE), 2021, pp. 1-6, doi: 10.1109/ATEE52255.2021.9425287
9. I. I. Picioroaga, **A. Tudose**, D. O. Sidea, C. Bulac and M. Eremia, "Two-level Scheduling Optimization of Multi-microgrids Operation in Smart Distribution Networks," 2020 International Conference and Exposition on Electrical And Power Engineering (EPE), 2020, pp. 407-412, oi: 10.1109/EPE50722.2020.9305614**.**
10. D. O. Sidea, I. I. Picioroaga, **A. M. Tudose**, C. Bulac and I. Tristiu, "Multi-Objective Particle Swarm optimization Applied on the Optimal Reactive Power Dispatch in Electrical Distribution Systems," 2020 International Conference and Exposition on Electrical And Power Engineering (EPE), 2020, pp. 413-418, doi: 10.1109/EPE50722.2020.9305548.
11. **A. M. Tudose**, D. O. Sidea, I. I. Picioroaga, V. A. Boicea and C. Bulac, "A CNN Based Model for Short-Term Load Forecasting: A Real Case Study on the Romanian Power System," 2020 55th International Universities Power Engineering Conference (UPEC), Torino, Italy, 2020, pp. 1-6

CĂRȚI

1. Valentin A. Boicea, **Andrei Tudose**, Irina Picioroaga, Radu Porumb, Alexandru Mandis, Narcisa Pislaru, "Gestiunea energiei electrice. Indrumar pentru aplicatii", Editura Matrixrom, București, 2021, ISBN: 978-606-25-0659-9.

CONTRACTE DE CERCETARE ŞI RAPOARTE ŞTIINŢIFICE

Proiecte internaționale:

1. New generation energy installation designed to provide energy support in critical infrastructures/Instalație energetică de generație nouă destinată asigurării suportului energetic în infrastructuri critice (W-ISS-E), Proiect tehnologic inovativ, 2021-2023, Funcția: Cercetător.
2. *Smart and local reneWable Energy DISTRICT heating and cooling solutions for sustainable living* (WEDISTRICT), H2020-LC-SC3-2019-RES-IA-CSA, Grant nr. 857801, 2019-2023. Funcţia: Cercetător.
3. *Energy Storage for Future Grids* (Storage4Grid), H2020-LCE-2016-SGS, Grant nr. 731155, 2016-2019. Funcţia: Cercetător.

Proiecte naționale:

1. *Ensuring resilience of energy infrastructure in smart cities using artificial intelligence techniques/Asigurarea rezilienței infrastructurii energetice în orașe inteligente utilizând tehnici de inteligență artificială*), RESETTLE (ID: 220235450), GnAC ARUT 2023. Funcţia: Cercetător.
2. *Pachet software bazat pe inteligență artificială pentru managementul energetic optim în scopul creșterii independenței energetice a României*, AOSR Teams 2022-2023, Funcția: Cercetător.