

Listă completă de lucrări **Alexandru TOPÎRCEANU**

Cărți de specialitate în edituri recunoscute – naționale

1. **Topirceanu**, A., "Hands-on Android application development with Google Firebase", Colectia "Calculatoare", 155 pg., Editura Politehnica, Timisoara, 2021, ISBN 978-606-35-0408-2.
2. **Topirceanu**, A., "Structural and Behavioral Analysis and Modeling of the Society", Colectia "Teze de doctorat ale UPT", seria 14: "Calculatoare si Tehnologia Informatiei", nr. 30, 252 pg., Editura Politehnica, Timisoara, 2016.

Capitole în cărți de specialitate în edituri recunoscute - internaționale

1. **Topirceanu**, A., Udrescu, M., Vladutiu, M., "Genetically Optimized Social Network Topology Inspired by Facebook", Online Social Media Analysis and Visualization (pp. 163-179). Springer International Publishing. DOI:10.1007/978-3-319-13590-8_8, 2014, ISBN 978-3-319-13590-8.
2. **Topirceanu**, A., Udrescu, M., Avram, R., & Mihaicuta, S. (2016). Data Analysis for Patients with Sleep Apnea Syndrome: A Complex Network Approach. In Soft Computing Applications (pp. 231-239), ISBN 978-3-319-18296-4, Springer International Publishing.
3. **Topirceanu**, A., Iovanovici, A., Cosariu, C., Udrescu, M., Prodan, L., & Vladutiu, M. (2016). Social Cities: Redistribution of Traffic Flow in Cities Using a Social Network Approach. In Soft Computing Applications (pp. 39-49), ISBN 978-3-319-18296-4, Springer International Publishing.
4. Iovanovici, A., **Topirceanu**, A., Cosariu, C., Udrescu, M., Prodan, L., & Vladutiu, M. (2016). Heuristic Optimization of Wireless Sensor Networks Using Social Network Analysis. In Soft Computing Applications (pp. 663-671), ISBN 978-3-319-18296-4, Springer International Publishing.
5. **Topirceanu** A., Udrescu M. (2018) Strength of Nations: A Case Study on Estimating the Influence of Leading Countries Using Social Media Analysis. In: Alhajj R., Hoppe H., Hecking T., Bródka P., Kazienko P. (eds) Network Intelligence Meets User Centered Social Media Networks. Lecture Notes in Social Networks. Springer, Cham.

Material didactic

1. **Topirceanu**, A., Marcu, M., "Introducere in programarea Android", Colectia "Programare", 137 pg., Editura Politehnica, Timisoara, 2015, ISBN 978-606-554-986-9.

Brevete de invenție naționale

1. Marcu M G, Stancovici A, Stangaciu V, Stangaciu C, **Topirceanu** A, Popescu B, Volcinschi D, Fuicu S O, "System For Measuring And Analyzing The Energy Consumption In Electric Devices By Using Consumption Signatures", RO127698-A0, 2011.

Articole în reviste indexate ISI cu factor de impact

1. **Topirceanu**, A., Duma, A., & Udrescu, M. (2016). Uncovering the fingerprint of online social networks using a network motif based approach. Computer Communications, 73, 167-175. (IF=3.338, Q1)
2. **Topirceanu**, A., Udrescu, M., Vladutiu, M., & Marculescu, R. (2016). Tolerance-based

- interaction: a new model targeting opinion formation and diffusion in social networks. PeerJ Computer Science, 2, e42. (IF=3.091, **Q1**)
3. Suci, L., Cristescu, C., **Topîrceanu**, A., Udrescu, L., Udrescu, M., Buda, V., & Tomescu, M. C. (2016). Evaluation of patients diagnosed with essential arterial hypertension through network analysis. Irish Journal of Medical Science(1971-), 185(2), 443-451. (IF=1.158, **Q4**)
 4. **Topîrceanu**, A., Udrescu, M. (2016). Statistical Fidelity: A Tool to Quantify the Similarity Between Multi-variable Entities with Application in Complex Networks. International Journal of Computer Mathematics, Taylor & Francis, DOI: 10.1080/00207160.2016.1247437. (IF=1.054, **Q2**)
 5. Udrescu, L., Sbârcea, L., **Topîrceanu**, A., Iovanovici, A., Kurunczi, L., Bogdan, P., & Udrescu, M. (2016). Clustering drug-drug interaction networks with energy model layouts: community analysis and drug repurposing. Scientific Reports, 6. (IF=5.228, **Q1**).
 6. Mihaicuta, S., Udrescu, M., **Topîrceanu**, A., Udrescu, L. (2016). Network science meets respiratory medicine for OSAS phenotyping and severity prediction. PeerJ, 5:e3289 (IF=2.183, **Q1**)
 7. **Topîrceanu**, A. (2017). Breaking up friendships in exams: A case study for minimizing student cheating in higher education using social network analysis. Computers & Education, 115, 171-187 (IF=4.538, **Q1**)
 8. **Topîrceanu**, A., Udrescu, M., & Marculescu, R. (2018). Weighted Betweenness Preferential Attachment: A New Mechanism Explaining Social Network Formation and Evolution. Scientific reports, 8(1), 10871 (IF=4.122, **Q1**)
 9. **Topîrceanu**, A. (2018). Competition-Based Benchmarking of Influence Ranking Methods in Social Networks. Complexity, 2018 (IF=2.591, **Q1**)
 10. Fierăscu, S. I., Pârvu, M., **Topîrceanu**, A., & Udrescu, M. (2018). Exploring Party Switching in the Post-1989 Romanian Politicians Networks from a Complex Network Perspective. Romanian Journal of Political Science, 18(1), 108-136 (IF=0.421, **Q4**)
 11. **Topîrceanu**, A., Udrescu, M., Udrescu, L., Ardelean, C., Dan, R., Reisz, D., & Mihaicuta, S. (2018). SAS score: Targeting high-specificity for efficient population-wide monitoring of obstructive sleep apnea. PloS one, 13(9), e0202042 (IF=2.766, **Q1**)
 12. Udrescu, L., Bogdan, P., Chis, A., Sirbu, I. O., **Topîrceanu**, A., Varut, R. M., & Udrescu, M. (2020). Uncovering new drug properties in target-based drug-drug similarity networks. Pharmaceutics, 12(9), 879. (IF=4.421, **Q1**)
 13. **Topîrceanu**, A., Udrescu, L., Udrescu, M., & Mihaicuta, S. (2020). Gender Phenotyping of Patients with Obstructive Sleep Apnea Syndrome Using a Network Science Approach. Journal of Clinical Medicine, 9(12), 4025. (IF=3.303, **Q1**)
 14. Mihaicuta, S., Udrescu, L., Udrescu, M., Toth, I. A., **Topîrceanu**, A., Pleavă, R., & Ardelean, C. (2021). Analyzing Neck Circumference as an Indicator of CPAP Treatment Response in Obstructive Sleep Apnea with Network Medicine. Diagnostics, 11(1), 86. (IF=3.110, **Q1**)

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1. **Topîrceanu**, A., Udrescu, M., & Vladutiu, M. (2013, September). Network fidelity: A metric to quantify the similarity and realism of complex networks. In Cloud and Green Computing (CGC), 2013 Third International Conference on (pp. 289-296). IEEE.
2. **Topîrceanu**, A., Barina, G., & Udrescu, M. (2014, September). Musenet: Collaboration in the music artists industry. In Network Intelligence Conference (ENIC), 2014 European (pp. 89-94). IEEE.
3. **Topîrceanu**, A., & Udrescu, M. (2015, September). FMNet: Physical Trait Patterns in the Fashion World. In Network Intelligence Conference (ENIC), 2015 Second European (pp. 25-32). IEEE.

4. Barina, G., Topirceanu, A., & Udrescu, M. (2014, May). MuSeNet: Natural patterns in the music artists industry. In Applied Computational Intelligence and Informatics (SACI), 2014 IEEE 9th International Symposium on (pp. 317-322). IEEE.
5. Duma, A., & Topirceanu, A. (2014, May). A network motif based approach for classifying online social networks. In Applied Computational Intelligence and Informatics (SACI), 2014 IEEE 9th International Symposium on (pp. 311-315). IEEE.
6. Topirceanu, A., Fleşeriu, C., Udrescu, M. "Gamified: An Effective and Innovative Approach to Student Motivation Using Gamification". The 2nd International Conference on Social Media in Academia: Research and Teaching (SMART 2014), pp. 41-44.
7. Topirceanu, A., Tiselice, D., Udrescu, M. "The Fingerprint of Educational Platforms in Social Media: A Topological Study Using Online Ego-Networks". The 2nd International Conference on Social Media in Academia: Research and Teaching (SMART 2014), pp. 355-360.
8. Topirceanu, A., & Udrescu, M. (2015, May). Measuring realism of social network models using network motifs. In Applied Computational Intelligence and Informatics (SACI), 2015 IEEE 10th Jubilee International Symposium on (pp. 443-447). IEEE.
9. Udrescu, M., & Topirceanu, A. (2015, May). What Drives the Emergence of Social Networks?. In 2015 20th International Conference on Control Systems and Computer Science (pp. 999-999). IEEE.
10. Topirceanu, A., Garcia, J., & Udrescu, M. (2016, September). UPT. Social: The Growth of a New Online Social Network. In Network Intelligence Conference (ENIC), 2016 Third European (pp. 9-16). IEEE.
11. Udrescu, M., & Topirceanu, A. (2016, September). Probabilistic Modeling of Tolerance-Based Social Network Interaction. In Network Intelligence Conference (ENIC), 2016 Third European (pp. 48-54). IEEE.
12. Topirceanu, A. (2017). Gamified learning: A role-playing approach to increase student in-class motivation. *Procedia Computer Science*, 112, 41-50.
13. Topirceanu, A., & Grosseck, G. (2017). Decision tree learning used for the classification of student archetypes in online courses. *Procedia Computer Science*, 112, 51-60.
14. Barina, G., Udrescu, M., Topirceanu, A., & Vladutiu, M. (2018, August). Simulating Payoff Distribution in Networks of Economic Agents. In 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM) (pp. 467-470). IEEE.
15. Topirceanu, A., & Udrescu, M. (2018, August). Topological Fragility Versus Antifragility: Understanding the Impact of Real-Time Repairs in Networks Under Targeted Attacks. In 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM) (pp. 1215-1222). IEEE.
16. Topirceanu, A., & Precup, R. E. (2019, August). A novel methodology for improving election poll prediction using time-aware polling. In Proceedings of the 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (pp. 282-285).

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1. Marcu, M., Stangaciu, C., Topirceanu, A., Volcinschi, D., & Stangaciu, V. (2010, December). Wireless Sensors Solution for Energy Monitoring, Analyzing, Controlling and Predicting. In International Conference on Sensor Systems and Software (pp. 1-19). Springer Berlin Heidelberg.
2. Iovanovici, A., Topirceanu, A., Udrescu, M., & Vladutiu, M. (2014, October). Design space exploration for optimizing wireless sensor networks using social network

- analysis. In System Theory, Control and Computing (ICSTCC), 2014 18th International Conference (pp. 815-820). IEEE.
3. **Topirceanu**, A., Iovanovici, A., Udrescu, M., & Vladutiu, M. (2014, October). Social cities: Quality assessment of road infrastructures using a network motif approach. In System Theory, Control and Computing (ICSTCC), 2014 18th International Conference (pp. 803-808). IEEE.
 4. **Topirceanu**, A., Udrescu, M., Vladutiu, M., & Marculescu, R. (2016). Tolerance-based interaction: a new model targeting opinion formation and diffusion in social networks. PeerJ Computer Science, 2, e42.
 5. **Topirceanu**, A., & Precup, R. E. (2019, August). A novel methodology for improving election poll prediction using time-aware polling. In Proceedings of the 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (pp. 282-285).
 6. Barina, G., Udrescu, M., Barina, A., **Topirceanu**, A., & Vladutiu, M. (2019). Agent-based simulations of payoff distribution in economic networks. Social Network Analysis and Mining, 9(1), 63.
 7. **Topirceanu**, A., Udrescu, M., & Mărculescu, R. (2020, January). Complex Networks Antifragility under Sustained Edge Attack-Repair Mechanisms. In International Conference on Network Science (pp. 185-199). Springer, Cham.
 8. **Topirceanu**, A., & Precup, R. E. (2020). A framework for improving electoral forecasting based on time-aware polling. Social Netw. Analys. Mining, 10(1), 39.
 9. Muntea, D., Giurgiu, M., & **Topirceanu**, A. (2020, May). Network-based clustering of book genres based on the connection between books bought together. In 2020 IEEE 14th International Symposium on Applied Computational Intelligence and Informatics (SACI) (pp. 000041-000046). IEEE.
 10. **Topirceanu**, A. (2020, December). Analyzing the Impact of Geo-Spatial Organization of Real-World Communities on Epidemic Spreading Dynamics. In International Conference on Complex Networks and Their Applications (pp. 345-356). Springer, Cham.