

**Lista de lucrări**  
**Conf. dr.ing. Mircea Augustin Roșca**  
**INGINERIA TRANSPORTURILOR**

**0. LISTA DE LUCRĂRI CONSIDERATE RELEVANTE (R):**

- R 1.** Rosca, E.; Oprea, C.; **Rosca, M.**; Burciu, S.; Roman, A.; Rusca, F. An XGBoost Approach to Identifying Hinterland Drivers of Inland Port Development. *Systems* 2026, 14, 395. <https://doi.org/10.3390/systems14040395> WOS:001750241500001 IF 3.8
- R 2.** **Rosca, M.A.**; Oprea, F.C.; Dragu, V.; Dinu, O.M.; Costea, I.; Burciu, S. Evaluating the Impact of Automated Vehicle Penetration on Intersection Traffic Flow: A Microsimulation-Based Approach. *Systems* 2025, 13, 751. <https://doi.org/10.3390/systems13090751> WOS:001581001700001 IF 3.8
- R 3.** Dragu, V.; Roman, E.A.; **Rosca, M.A.**; Oprea, F.C.; Mironescu, A.-B.; Dinu, O.M. Integrated Information System for Parking Facilities Operations and Management. *Systems* 2025, 13, 769, <https://doi.org/10.3390/systems13090769> WOS:001581021500001 IF 3,8
- R 4.** Oprea, C.; **Rosca, M.**; Rosca, E.; Costea, I.; Ilie, A.; Dinu, O.; Ruscă, A. Analyzing Passenger Flows in an Airport Terminal: A Discrete Simulation Model. *Computation* 2024, 12, 223. <https://doi.org/10.3390/computation12110223> WOS:001364125400001 IF 2,6
- R 5.** Rosca, E.; Rusca, F.; **Rosca, M.A.**; Rusca, A. Performance Analysis of Automated Parcel Lockers in Urban Delivery: Combined Agent-Based–Monte Carlo Simulation Approach. *Logistics* 2024, 8, 61, <https://doi.org/10.3390/logistics8020061> WOS:001256775200001 IF 4,4
- R 6.** Raicu, S., Costescu, D., Popa, M., **Rosca, M.A.**, *Including negative externalities during transport infrastructure construction in assessment of investment projects*, European Transport Research Review, 2019, DOI: 10.1186/s12544-019-0361-9, Publisher SPRINGEROPEN, Campus, 4 Crinan St, London, N1 9xw, England, Pages 1-15, ISSN: 1867-0717, eISSN: 1866-8887, impact factor: 1.727, WOS:000467466900002
- R 7.** **Rosca, M.**, Oprea, C., Petrescu, R., Burciu, Ș., Stere, A., *Improving Sfety and Traffic Conditions on National Roads Passing through Towns without Bypass*, 2020, 13th International Conference Interdisciplinarity in Engineering, INTER-ENG 2019, Procedia Manufacturing, Volume 46, Pages 217-224, ISSN: 2351-9789 [Science Direct]
- R 8.** Costescu, D, Raicu, S, **Rosca, M**, Burciu, S, Ruscă, F, *Using intersection conflict index in urban traffic risk evaluation*, 9th International Conference Interdisciplinarity in Engineering INTER-ENG 2015 , Tirgu-Mures, Romania, [ISI Proceedings, Accession Number, WOS=000383949300045, ISSN: 2212-0173]
- R 9.** Dinu, O., Rosca, E., Dragu, V., **Rosca, MA**, Ilie A., *Optimization of the transfer function through handling productivity control in port container terminals*, INTER-ENG 2017 Book Series: **Procedia Manufacturing**, Volume: 22, Pages: 856-863, 2018, WOS:000456199200119
- R 10.** Raicu, S, Costescu, D, Burciu, S, Rusca, F, **Rosca, M**, *Road accident estimation model in urban areas, road accident estimation model in urban areas*, TRANSPORT PROBLEMS, Volume: 11 Issue: 3 Pages: 33-42, 2016, WOS:000409341400004
- R 11.** Rosca, E., Raicu, S., **Rosca, M.**, Burciu, S., *Transshipment Modeling and Simulation of Container Port Terminals*, Modern Technologies In Industrial Engineering, Book Series: Advanced Materials Research, Volume: 837, Pages: 786-791, 2014 [ISI Proceedings, Accession Number, WOS:000337000500135, ISSN: 1022-6680]
- R 12.** **Rosca, M. A.**, Ruscă, A., *Methods for green times allocation in under-saturated signalized intersection*, U.P.B. Scientific Bulletin, Series D, Vol. 74, Iss. 4, Pages:91-104, 2012 (Scopus)

**I. TEZA (E) DE DOCTORAT (T)**

**T.1. Roșca, M. A.**, Cercetări privind congestia rețelilor rutiere din aglomerațiile urbane, Conducător științific Prof. dr. ing. Șerban Raicu (2012)

**II. CĂRȚI PUBLICATE (C)**

**Ca** – Cărți / cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute.

**Ca 1.** **Rosca, M.A.**, Dinu, O, Rusca, F, Fluxuri de trafic rutier, Ed. PRINTECH, București, ISBN 978-606-23-1104-9, 149 pg, 2020

**Ca 2. Rosca, M.A.,** Rosca, E., Rusca, FV, Tehnici de programare , Ed. PRINTECH, București, ISBN 978-606-23-0382-2, 120 pg, 2015

**Ca 3. Rusca, F, Rosca, E., Rosca, M.A.,** Programarea calculatoarelor- îndrumar de laborator , Ed. PRINTECH, București, ISBN 978-606-23-1107-0, 123 pg, 2020

**Ca 4. Rusca, F, Ruscă, A., Rosca, M.A.,** Amenajări urbane și software pentru planning și design – manual didactic- Ed. PRINTECH, București, ISBN 978-606-23-1103-2 , 104 pg, 2020

**Cb** - Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor).

**Cb 1. Dinu, O, Rosca, M.A.,** Rusca, F, Infrastructuri de transport. Indicatori. Performanță Ed. PRINTECH, București, ISBN 978-606-23-1105-6, 146 pg, 2020

**Cb 2. Rusca, F, Ruscă, A., Dinu, O, Rosca, M.A.,** Metode de analiză a fiabilității rețelelor de transport, Ed. PRINTECH, București, ISBN 978-606-23-1106-3, 140 pg, 2020

**Cb 3. Raicu, S., Dragu, V., Roșca, M.A.,** Herman, M., Sisteme de transport, Editura AOSR, Bucuresti, ISBN 978-606-8371-50-4, 114 pg., 2011

**Cc** - Cărți publicate în alte edituri, cu ISBN.

### III. ALTE MATERIALE PUBLICATE (I,D)

**I** - Culegeri și Îndrumare publicate (separate în edituri cu ISBN și în tipografii locale/de instituții sau de uz intern).

**D** - Alte lucrări publicate: capitole publicate în volume colective, capitole teoretice redactate, sisteme de laborator funcționale etc.

**D 1.** Chapter Evaluating the impact of using smart equipment for preselecting cargo vehicles in the maritime port access area, Book Advances in Maritime Technology and Engineering, 1st Edition, eBook ISBN 9781003508762, 2024, 6 pag, CRC Press, A. Rusca, O. Dinu, F. Rusca, E. Rosca, **M. Rosca**, A. Ilie, <https://doi.org/10.1201/9781003508762>

<https://www.taylorfrancis.com/chapters/edit/10.1201/9781003508762-11/evaluating-impact-using-smart-equipment-preselecting-cargo-vehicles-maritime-port-access-area-rusca-dinu-rusca-rosca-rosca-ilie>

**D 2.** Chapter Risk assessment for dangerous goods in maritime transport; Towards Green Marine Technology and Transport – Guedes Soares, Dejhalla & Pavleti (Eds); ISI; ISBN 978-1-138-02887-6/09/2015/Taylor & Francis Group, London; 669-674, authors F. Ruscă, S. Raicu, E. Rosca, M. Rosca & Ș. Burciu (Indexată SCOPUS ca Book Chapter <https://www.scopus.com/pages/publications/85054375708> <https://www.taylorfrancis.com/chapters/edit/10.1201/b18855-90/risk-assessment-dangerous-goods-maritime-transport-rusca%20C4%83-raicu-rosca-rosca-burciu?context=ubx&refId=207c7dc4-f183-4df2-a1cc-68493339fef0>

### IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R,V)

**Ris** - Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate in alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de selectie a revistelor pe baza unor criterii de performanta). *Se mentioneaza la fiecare lucrare includerea in Baza ISI [Accession Number, WOS=..., ultimul Factor Impact, ISSN] si/sau denumirea altei (altor) BDI.*

**Ris 1.** Roșca, E.; Oprea, C.; **Roșca, M.**; Burciu, S.; Roman, A.; Rușcă, F. An XGBoost Approach to Identifying Hinterland Drivers of Inland Port Development. *Systems*, 2026, 14, 395. <https://doi.org/10.3390/systems14040395> [Accession Number, WOS=001750241500001, Factor de Impact =3.8, ISSN=2079-8954]

**Ris 2. Roșca, M.A.**; Oprea, F.C.; Dragu, V.; Dinu, O.M.; Costea, I.; Burciu, S. Evaluating the Impact of Automated Vehicle Penetration on Intersection Traffic Flow: A Microsimulation-Based Approach. *Systems*, 2025, 13(9), 751. <https://doi.org/10.3390/systems13090751> [Accession Number: WOS=001581001700001, Factor de Impact=3.8, ISSN=2079-8954]

**Ris 3.** Dragu, V.; Roman, E.A.; **Roșca, M.A.**; Oprea, F.C.; Mironescu, A.-B.; Dinu, O.M. Integrated Information System for Parking Facilities Operations and Management. *Systems*, 2025, 13(9), 769. <https://doi.org/10.3390/systems13090769> [Accession Number: WOS=001581021500001, Factor de Impact=3.8, ISSN=2079-8954]

**Ris 4.** Dragu, V.; Ruscă, A.; **Roșca, M.A.** The Spatial Accessibility of High-Capacity Public Transport Networks—The Premise of Sustainable Development. *Sustainability*, 2025, 17(1), 343. <https://doi.org/10.3390/su17010343> [Accession Number: WOS=001393849200001, Factor de Impact=4.1, ISSN=2071-1050]

**Ris 5.** Oprea, C.; **Rosca, M.**; Rosca, E.; Costea, I.; Ilie, A.; Dinu, O.; Ruscă, A. Analyzing Passenger Flows in an Airport Terminal: A Discrete Simulation Model. *Computation*, 2024, 12(11), 223. <https://doi.org/10.3390/computation12110223> [Accession Number: WOS=001364125400001, Factor de Impact=2.6, ISSN=2079-3197]

**Ris 6.** Raicu, S.; Costescu, D.; Popa, M.; **Roșca, M.A.** Including Negative Externalities during Transport Infrastructure Construction in Assessment of Investment Projects. *European Transport Research Review*, 2019, 11, art. 24, pp. 1–15. <https://doi.org/10.1186/s12544-019-0361-9> [Accession Number: WOS=000467466900002, Factor de Impact=5.8, ISSN=1867-0717, eISSN=1866-8887]

**Ris 7.** Rosca, E.; Rusca, F.; **Rosca, M.A.**; Rusca, A. Performance Analysis of Automated Parcel Lockers in Urban Delivery: Combined Agent-Based–Monte Carlo Simulation Approach. *Logistics*, 2024, 8(2), 61. <https://doi.org/10.3390/logistics8020061> [Accession Number: WOS=001256775200001, Factor de Impact=4.4, ISSN=2305-6290]

**RIS 8.** Stere, Ș.; Roșca, E.; **Roșca, M.**; Ruscă, F. Reorganizing Students Access in University Politehnica of Bucharest Campus and Influences on Car Traffic Externalities. *Romanian Journal of Transport Infrastructure*, 2022, vol. 11, nr. 2, pp. 1–15. DOI: 10.2478/rjti-2022-0015 [Accession Number: WOS=000943408600006, ultimul Factor de Impact=0.4, eISSN=2286-2218]

**Ris 9.** Ruscă, F.; Popa, M.; Roșca, E.; **Roșca, M.**; Ruscă, A. Simulation Model for Maritime Container Terminal. *Transport Problems*, 2018, vol. 13, nr. 4, pp. 47–54. DOI: 10.20858/tp.2018.13.4.5 [Accession Number: WOS=000453319700005, ISSN=1896-0596, eISSN=2300-861X]

**RIS 10.** Raicu, S.; Costescu, D.; Burciu, S.; Ruscă, F.; **Roșca, M.** Road Accident Estimation Model in Urban Areas. *Transport Problems*, 2016, vol. 11, nr. 3, pp. 33–42. DOI: 10.20858/tp.2016.11.3.4 [Accession Number: WOS=000409341400004, ultimul Factor de Impact=0.4, ISSN=1896-0596, eISSN=2300-861X]

**Rio** – Alte reviste de specialitate de circulație internațională.

**Rns** - Reviste de specialitate de circulație națională recunoscute de CNCSIS. Se menționează Categoria CNCSIS.

**Rno** - Alte reviste de specialitate de circulație națională.

**Vis**- Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate, indexate ISI Thomson Reuters sau indexate în alte Baze de Date Internaționale - BDI specifice domeniului, care fac un proces de selecție a publicațiilor pe baza unor criterii de performanță. *Se menționează la fiecare lucrare includerea în Baza ISI [ISI Proceedings, Accession Number, WOS=....., ISSN] și/sau denumirea altei (altor) BDI.*

**Vis1. Roșca, M.**; Roșca, E.; Oprea, C.; Ruscă, F.; Dinu, O.; Ruscă, A. The Effects of New Infrastructure on Traffic Dynamics. An Urban Simulated-Based Model. In: Moldovan, L.; Gligor, A. (eds.), *The 15th International Conference Interdisciplinarity in Engineering – INTER-ENG 2021, Lecture Notes in Networks and Systems*, vol. 386, Springer, Cham, 2022, pp. 235–246. DOI: 10.1007/978-3-030-93817-8\_23 [ISI Proceedings, Accession Number: WOS=000773080200023, ISSN=2367-3370, eISSN=2367-3389]

**Vis2. Roșca, M.**; Oprea, C.; Petrescu, R.; Burciu, Ș.; Stere, A. Improving Safety and Traffic Conditions on National Roads Passing through Towns without Bypass. In: *Proceedings of the 13th International Conference Interdisciplinarity in Engineering – INTER-ENG 2019, 3–4 October 2019, Târgu Mureș, Romania. Procedia Manufacturing*, 2020, vol. 46, pp. 217–224. DOI: 10.1016/j.promfg.2020.03.032 [ISI Proceedings, Accession Number: WOS=000582466200031, ISSN=2351-9789]

**Vis3. Roșca, M.**; Oprea, C.; Ilie, A.; Olteanu, S.; Dinu, O. Solutions for Improving Transit through Intermodal Passenger Terminals. In: *Proceedings of the 13th International Conference Interdisciplinarity in Engineering – INTER-ENG 2019, 3–4 October 2019, Târgu Mureș, Romania. Procedia Manufacturing*, 2020, vol. 46, pp. 225–232. DOI: 10.1016/j.promfg.2020.03.033 [ISI Proceedings, Accession Number: WOS=000582466200032, ISSN=2351-9789]

**VIS 4.** Oprea, C.; Ilie, A.; **Roșca, M.**; Ruscă, F.; Olteanu, S.; Ilie, I. Road Traffic Accidents – Safety Analysis of Urban Travel with Two-Wheel Vehicles. In: Moldovan, L.; Gligor, A. (eds.), *The 15th International Conference Interdisciplinarity in Engineering – INTER-ENG 2021, Lecture Notes in Networks and Systems*, vol. 386, Springer, Cham, 2022, pp. 247–257. DOI: 10.1007/978-3-030-93817-8\_24 [ISI Proceedings, Accession Number: WOS=000773080200024, ISSN=2367-3370, eISSN=2367-3389]

**VIS 5.** Ruscă, F.; Ruscă, A.; Roșca, E.; **Roșca, M.**; Dinu, O.; Ghionea, F. Algorithm for Traffic Allocation When Are Developed Park and Ride Facilities. In: *Proceedings of the 12th International Conference Interdisciplinarity in Engineering – INTER-ENG 2018. Procedia Manufacturing*, 2019, vol. 32, pp. 936–943. DOI: 10.1016/j.promfg.2019.02.306 [ISI Proceedings, Accession Number: WOS=000471295800131, ISSN=2351-9789]

**VIS 6.** Dinu, O.; Roșca, E.; Dragu, V.; **Roșca, M.A.**; Ilie, A. Optimization of the Transfer Function through Handling Productivity Control in Port Container Terminals. In: *Proceedings of the 11th International Conference Interdisciplinarity in Engineering – INTER-ENG 2017. Procedia Manufacturing*, 2018, vol. 22, pp. 856–863. DOI: 10.1016/j.promfg.2018.03.121 [ISI Proceedings, Accession Number: WOS=000456199200119, ISSN=2351-9789]

**VIS 7.** Ruscă, A.; Ruscă, F.; Roșca, E.; Dragu, V.; **Roșca, M.** Improving Capacity of Port Shunting Yard. In: Guedes Soares, C.; Santos, T.A. (eds.), *Progress in Maritime Technology and Engineering – Proceedings of the 4th International Conference on Maritime Technology and Engineering, MARTECH 2018, Lisbon, Portugal, 7–9 May 2018*, pp. 35–42. DOI: 10.1201/9780429505294-5 [ISI Proceedings, Accession Number: WOS=000467268100005, ISBN=978-1-138-58539-3, eISBN=978-0-429-50529-4]

**VIS 8.** Ruscă, F.; Roșca, E.; Popa, M.; Ruscă, A.; **Roșca, M.** The Failure Analysis of Handling Process in Maritime Container Terminal. In: Cokorilo, O. (ed.), *Proceedings of the Fourth International Conference on Traffic and Transport Engineering – ICTTE 2018, Belgrade, Serbia, 27–28 September 2018*, pp. 298–304 [ISI Proceedings, Accession Number: WOS=000542956800039, ISBN=978-86-916153-4-5]

- VIS 9.** Ruscă, F.; Roșca, E.; Costescu, D.; Ruscă, A.; **Roșca, M.**; Olteanu, S. The Influence of Storage Area Design on Maritime Container Terminal Capacity. In: Proceedings of the 6th International Conference on Modern Technologies in Industrial Engineering – ModTech 2018. IOP Conference Series: Materials Science and Engineering, 2018, vol. 400, art. 082017, pp. 1–7. DOI: 10.1088/1757-899X/400/8/082017 [ISI Proceedings, Accession Number: WOS=000461147400197, ISSN=1757-8981, eISSN=1757-899X]
- VIS 10.** Dinu, O.; Roșca, E.; Popa, M.; **Roșca, M.A.**; Ruscă, A. Assessing Materials Handling and Storage Capacities in Port Terminals. In: Proceedings of the ModTech International Conference – Modern Technologies in Industrial Engineering V. IOP Conference Series: Materials Science and Engineering, 2017, vol. 227, art. 012039, pp. 1–9. DOI: 10.1088/1757-899X/227/1/012039 [ISI Proceedings, Accession Number: WOS=000409221600039, ISSN=1757-8981, eISSN=1757-899X]
- VIS 11.** Oprea, C.; **Roșca, E.**; Popa, M.; Ilie, A.; Dinu, O.; **Roșca, M.A.** The Quality of Service in Passenger Transport Terminals. In: 20th Innovative Manufacturing Engineering and Energy Conference – IManEE 2016. IOP Conference Series: Materials Science and Engineering, 2016, vol. 161, art. 012098, pp. 1–9. DOI: 10.1088/1757-899X/161/1/012098 [ISI Proceedings, Accession Number: WOS=000391131300097, ISSN=1757-8981, eISSN=1757-899X]
- VIS 12.** Dinu, O.; Burciu, Ș.; Oprea, C.; Ilie, A.; **Roșca, M.** Inland Waterway Ports Nodal Attraction Indices Relevant in Development Strategies on Regional Level. In: Modern Technologies in Industrial Engineering IV – ModTech 2016. IOP Conference Series: Materials Science and Engineering, 2016, vol. 145, art. 082008, pp. 1–10. DOI: 10.1088/1757-899X/145/8/082008 [ISI Proceedings, Accession Number: WOS=000396437600138, ISSN=1757-8981, eISSN=1757-899X]
- VIS 13.** Ruscă, A.; Popa, M.; **Roșca, E.**; **Roșca, M.**; Dragu, V.; Ruscă, F. Simulation Model for Port Shunting Yards. In: Modern Technologies in Industrial Engineering IV – ModTech 2016. IOP Conference Series: Materials Science and Engineering, 2016, vol. 145, art. 082003, pp. 1–8. DOI: 10.1088/1757-899X/145/8/082003 [ISI Proceedings, Accession Number: WOS=000396437600133, ISSN=1757-8981, eISSN=1757-899X]
- VIS 14.** Costescu, D.; Raicu, S.; **Roșca, M.**; Burciu, S.; Ruscă, F. Using Intersection Conflict Index in Urban Traffic Risk Evaluation. In: 9th International Conference Interdisciplinarity in Engineering – INTER-ENG 2015. Procedia Technology, 2016, vol. 22, pp. 319–326. DOI: 10.1016/j.protcy.2016.01.104 [ISI Proceedings, Accession Number: WOS=000383949300045, ISSN=2212-0173]
- VIS 15.** Ruscă, F.; **Roșca, E.**; Ruscă, A.; **Roșca, M.**; Burciu, S. The Influence of Transport Network Vulnerability for Maritime Ports. In: Modern Technologies in Industrial Engineering – ModTech 2015. IOP Conference Series: Materials Science and Engineering, 2015, vol. 95, art. 012080, pp. 1–6. DOI: 10.1088/1757-899X/95/1/012080 [ISI Proceedings, Accession Number: WOS=000365128900080, ISSN=1757-8981, eISSN=1757-899X]
- VIS 16.** Ruscă, F.; Ghionea, F.; **Roșca, M.**; Popa, E. A Solution for Graphs with No Redundant Unique Links. In: Management – The Key Driver for Creating Value, Proceedings of the 7th International Conference of Management and Industrial Engineering – ICMIE 2015, Bucharest, Romania, 2015, pp. 309–321 [ISI Proceedings, Accession Number: WOS=000448633100029, ISSN=2344-0937]
- VIS 17.** Ruscă, F.; **Roșca, E.**; Ruscă, A.; **Roșca, M.**; Burciu, S. Park and Ride Solution, a Method to Promote Sustainable Mobility. In: Management – The Key Driver for Creating Value, Proceedings of the 7th International Conference of Management and Industrial Engineering – ICMIE 2015, Bucharest, Romania, 2015, pp. 755–764 [ISI Proceedings, Accession Number: WOS=000448633100075, ISSN=2344-0937]
- VIS 18.** **Roșca, E.**; Raicu, S.; **Roșca, M.**; Burciu, S. Transshipment Modeling and Simulation of Container Port Terminals. In: Modern Technologies in Industrial Engineering. Advanced Materials Research, 2014, vol. 837, pp. 786–791. DOI: 10.4028/www.scientific.net/AMR.837.786 [ISI Proceedings, Accession Number: WOS=000337000500135, ISSN=1022-6680, eISSN=1662-8985]
- VIS 19.** **Roșca, M.A.**; **Roșca, E.** Essential Concepts of Road Traffic Congestion. In: Proceedings of the 5th International Conference on Manufacturing Science and Education – MSE 2011, vol. I, Sibiu, Romania, 2–5 June 2011, pp. 483–486 [ISI Proceedings, Accession Number: WOS=000393733400118, ISSN=1843-2522]
- VIS 20.** Oprea, C.; **Roșca, M.**; Stere, Ș.; Olteanu, S. Traffic Modeling in Urban Congested Areas. In: Burnete, N.; Varga, B.O. (eds.), Proceedings of the 4th International Congress of Automotive and Transport Engineering – AMMA 2018, Cluj-Napoca, Romania, 17–19 October 2018, Springer, Cham, 2019, pp. 766–774. DOI: 10.1007/978-3-319-94409-8\_89 [ISI Proceedings, Accession Number: WOS=000578264900089, ISSN=2195-4356, eISSN=2195-4364]

**Vi -** Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate,

- Vi 1.** **Roșca, M.A.**; Roșca, E.; Ruscă, F.; Cărlan, V. Computer Simulation for Operational Traffic Improvement in Urban Intersections. In: Advances in Automatic Control, Modelling & Simulation – Proceedings of the 15th International Conference on Automatic Control, Modelling and Simulation, ACMOS 2013, Brașov, 2013, vol. 13, pp. 98–102, ISBN 978-1-61804-189-0.
- Vi 2.** Dinu, O.; **Roșca, M.A.**; Ștefănică, C. Base Vehicle Equivalents Standardization for Rail and Road Capacity Analysis. In: Advances in Automatic Control, Modelling & Simulation – Proceedings of the 16th International Conference on

Automatic Control, Modelling and Simulation, Recent Advances in Electrical Engineering Series, vol. 14, 2014, pp. 295–298.

**Vi 3.** Roșca, E.; Popa, M.; Ruscă, F.; **Roșca, M.A.** Evaluating Vehicles Emissions through Traffic Simulation. In: Advances in Automatic Control, Modelling & Simulation – Proceedings of the 16th International Conference on Automatic Control, Modelling and Simulation, Recent Advances in Electrical Engineering Series, vol. 14, 2014, pp. 158–163.

**Vi 4.** Costescu, D.; **Roșca, M.** Analysis of Urban Areas with Low Road Safety Performances. Mechanics, Transport, Communications, 2015, vol. 13, nr. 3/1, pp. II-8–II-13, ISSN 1312-3823, eISSN 2367-6620.

**Vi 5.** Ruscă, F.; Roșca, E.; **Roșca, M.A.**; Ruscă, A. Queueing Systems with Non-Uniform Arrivals Applied to Estimate Services Quality in Passengers Transport Terminals. In: Advances in Automatic Control, Modelling & Simulation – Proceedings of the 15th International Conference on Automatic Control, Modelling and Simulation, Recent Advances in Electrical Engineering Series, vol. 13, 2013, pp. 86–91.

**Vi 6.** Raicu, Ș.; Costescu, D.; **Roșca, M.A.** Evaluation of Road Safety Performances in Urban Areas. Mechanics, Transport, Communications, 2013, vol. 11, nr. 3/1, pp. II-37–II-43, ISSN 1312-3823.

**Vi 7.** Roșca, E.; **Roșca, M.** Time Benchmarking in Urban Transport Quality. In: Proceedings of the International Scientific Conference Transport 2007, Sofia, 2007, pp. 21–24, ISSN 1312-3823.

**Vi 8.** Roșca, E.; **Roșca, M.A.**; Ruscă, F. Traffic Congestion and Energy Consumption. In: 9th World Energy System Conference – WESC 2012, Towards a Sustainable and Integrated Energy System, Suceava, România, 28–30 iunie 2012, Buletinul AGIR, nr. 3/2012, pp. 709–714, ISSN-L 1224-7928.

**Vi 9.** Olteanu, S.; Ruscă, F.V.; **Roșca, M.A.**; Roșca, E. The Optimal Allocation of Unloading/Loading Ramps in Distribution Centers. Appl. Mech. Mater. 2015, 809–810, 1366–1371. <https://doi.org/10.4028/www.scientific.net/AMM.809-810.1366> [ISSN=1662-7482]

## **Vn - Volumele unor manifestări științifice naționale.**

**Vn 1.** **Roșca, M.A.**; **Roșca, E.** Asupra determinării capacității optime a sistemelor de parcare. Buletinul AGIR, nr. 1–2, 2005, pp. 127–130.

**Vn 2.** Costescu, D.; **Roșca, M.A.** Platforme logistice – soluții eficiente pentru economisirea de resurse și reducerea efectelor poluante. Buletinul AGIR, București, nr. 1, 2007, pp. 88–91.

**Vn 3.** Olteanu, S.; Neculcea, A.; **Roșca, M.** Nodurile rețelilor de transport și structurarea spațiului. Buletinul AGIR, Supliment nr. 2, 2016, pp. 60–67.

## **V. BREVETE DE INVENȚIE / INOVAȚII (B,A)**

**B** - Brevete de invenție.

**A** - Inovații și alte creații.

## **VI. CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P,F)**

**P** – Proiecte de cercetare-dezvoltare – inovare obținute prin competiție, pe bază de contract/grant, în țară/străinătate

(**Pn** – naționale, **Pi** - internaționale).

**Pn 1.** Grant național GNaC ARUT 2023 Contract nr.208. 2023-2025 Modelarea și simularea rețelilor de trafic rutier mixt în regim congestionat(MOSIR), 2 ani, Director Mircea Augustin Roșca

**Pn 2.** Grant național GNaC ARUT 2018 contract nr.5/15.10.2018 cod TR30-18-01 Modelarea traficului rutier urban prin metode analitice și simulare pe calculator, 14 luni, Director Mircea Augustin Roșca

**Pn 3.** Proiect GEX2017 nr 65/25.09.2017 cod TR27-17-05 Simularea terminalelor de transport - Director Florin Rusca

**Pn 3.** Educație civică pentru colectarea selectivă a deșeurilor în campusurile universitare 92110/1.10.2008 Director de proiect din partea UPB – CCPCT Prof.ec.dr.ing. Eugen Rosca

**Pn 4.** Soluții interdisciplinare convergente în amenajarea TERitoriului și în structurarea sistemului de TRANSport, orientate către dezvoltarea durabilă și creșterea calității vieții (122/10.10.2005 CEEX) Director de proiect din partea UPB – CCPCT Prof.dr.ing. Serban Raicu

**Pn 5.** Promovarea MObilitatii urbane DURabile in municipiul Bucuresti (104/03.10.2005 CEEX) Director de proiect din partea UPB – CCPCT Prof.dr.ing. Mihaela Popa

**Pn 6.** Cercetări pentru estimarea și creșterea performanțelor de siguranță intrinsecă a rețelilor traficului urban" -SAFENET-PN-II-PT-PCCA-2011-3.2-1439 (2012-2016), Director de proiect din partea UPB – CCPCT Dorinela Costescu

**Pn 7.** Proiect GEEX-UPB nr contract 65/25.09.2017 cod TR27-17-05 Simularea fluxurilor de trafic - Director de proiect Aura Rusca

**Pi 1.** FLAVIA - Freight and Logistics Advancement in Central/South-East Europe - Validation of trade and transport processes, Implementation of improvement actions, Application of co-coordinated structures–2CE189P2- 2010, funded by the European Regional Development Fund (with 14 partners in consortium and University of Applied Sciences, Wildau, Germany as lead partner), 2010-2013, Director de proiect din partea UPB – CCPCT Prof.dr.ing. Mihaela Popa

**Pi 2.** ACROSEE - Accessibility improved at border CROSSings for the integration of South East Europe - SEE/D/0093/3.3/X- finantat prin programul SEE din ERDF (24 parteneri, coordonator C.E.I. Italy), 2012-2014, Director de proiect din partea UPB, Prof.dr.ing. Mihaela Popa

**F – Alte lucrări de cercetare – dezvoltare**

*Obs.-a se menționa calitatea de responsabil/director sau coautor.*

**F 1.** Proiect MC, 2024, cod depunere PN-IV-P2-2.2-MC-2024-0485, nr. MC 312/09.11.2024. UEFISCDI Training software PTV-VISSIM VisVAP London, Director de proiect Mircea Augustin Roșca

**F 2.** Proiect MC 2017 PN-III-P1-1.1-MC-2017, nr.3/26.10.2017 UEFISCDI - Training software transport modelling PTV-VISUM-London, Director de proiect Mircea Augustin Roșca

**F 3.** Proiect MC 2017 PN-III-P1-1.1-MC-2017, nr.317/15.12.2017 UEFISCDI - Access research infrastructure of University of ZAGREB, Director de proiect Mircea Augustin Roșca

**F 4.** The railway survey 95/20.06.2007, Director de proiect din partea UPB – CCPCT Prof.dr.ing. Serban Raicu, coautor.

**F 5.** Contract 3561/12.03.2008 - Servicii de trafic, Director de proiect din partea UPB – CCPCT Prof.dr.ing. Serban Raicu, coautor.

**F 5.** Contract nr. 8460010145/12.10.2009 Prestări servicii Petrom SA, Director de proiect din partea UPB – CCPCT Prof.dr.ing. Serban Raicu, coautor.

**F 6.** "Masuratori privind gradul de incarcare a vehiculelor ce deserveșc liniile de transport in comun pentru 80 de sectiuni ale rețelei stradale a mun. Buc."/ Nr. 11033/21.04.2011, beneficiar SEARCH Corporation- Director de proiect din partea UPB – CCPCT: Prof.dr.ing. Serban Raicu, coautor.

**F 7.** Elaborare Plan de Mobilitate Integrata in municipiul Dej, ctr.nr.83/22.09.2015, finantat de Primaria Dej, Director de proiect din partea UPB – CCPCT Prof.ec.dr.ing. Eugen Rosca, coautor.

14.09.2026

Conf. dr.ing. Mircea Augustin Roșca