Curriculum vitae

INFORMAŢII PERSONALE

Csaba Antonya

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DOMENIU DE EXPERTIZĂ ŞI DOMENII DE INTERES DE CERCETARE

Dinamica vehiculelor, simulatoare de conducere şi vehicule autonome;
Dinamica sistemelor mecanice, sisteme multicorp, mecanisme;
Simulări 1D şi 3D;
Simulări, realitate virtuală şi dispozitive haptice.

EXPERIENŢA PROFESIONALĂ

2007 - ...

Profesor la Facultatea de Facultatea de Inginerie Mecanică, Universitatea Transilvania din Braşov

Universitatea Transilvania din Braşov
29 Eroilor, 500036 Braşov (România)
www.unitbv.ro

Activităţi didactice în domeniul Mecanisme, Vehicule autonome, Simularea şi dinamica sistemelor mecanice.

Activităţi de cercetare în domeniul sistemelor mecanice, vehicule autonome, realitate virtuală, instrumente haptice, interfeţe om-calculator.

Tipul sau sectorul de activitate Educaţie şi cercetare

2004 – 2007

Conferenţiar la Facultatea de Design de Produc şi Robotică, Universitatea Transilvania din Braşov

Universitatea Transilvania din Braşov
29 Eroilor, 500036 Brasov (România)

Activitaţi didactice în domeniul Mecanisme, Robotică, Realitate Virtuală (Simulare, vizualizare, prototipare virtuală).
Activităţi de cercetare în domeniul sistemelor mecanice, robotică, realitate virtuală, instrumente haptice, interfeţe om-calculator

Tipul sau sectorul de activitate Educaţie şi cercetare

1996 – 2004

Asistent / Şef lucrări la Facultatea de Design de Produc şi Robotică, Universitatea Transilvania din Braşov

Universitatea Transilvania din Braşov

1995 – 1996

Inginer cercetare - dezvoltare

Tractor Proiect S.A., Brasov

2009 – 2013

Inginer cercetare - dezvoltare

Computer Sharing Bucureşti, Bucureşti

10731 Calea Grivitei nr. 6, sector 1, Bucuresti
www.csb.ro, csaba.antonya@csb.ro

Activităţi de cercetare în proiectul ARTreat: FP7-224297

2017 – 2020 **Inginer cercetare**

Siemens Industry Software România, Brasov

Nine, Bulevardul Gării 13A, Brașov 500227
plm.automation.siemens.com; antonya.csaba@siemens.com
Activităţi de cercetare, consultanţă

2007 – ... **Conducător de doctorat, domeniul inginerie mecanică**

Universitatea Transilvania din Braşov

4 doctori confirmați, 4 doctoranzi în activitate.

Tipul sau sectorul de activitate Cercetare şi dezvoltare

EDUCAŢIE ŞI FORMARE

1996–2002 **Doctorat**

Universitatea Transilvania din Braşov

Domeniul: Inginerie mecanică.

Titlul tezei de doctorat: Transmisibilitatea dinamică a mecanismelor de ghidare ale roţilor autoturismelor.

1990–1995 **Inginer**

Universitatea Transilvania din Braşov

Facultatea de Inginerie Mecanică, Specializarea: Autovehicule rutiere

1995–1996 **Master / Studii aprofundate**

Universitatea Transilvania din Braşov

Specializarea: Sisteme mecanice de transmitere a puterii

COMPETENŢE PERSONALE

Limbi principale: Maghiară, română

Limbile străine

	ÎNŢELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversaţie	Discurs oral	
engleză	C1	C1	C1	C1	C1
franceză	B1	B1	A2	A2	A2

Niveluri: A1 și A2: Utilizator elementar - B1 și B2: Utilizator independent - C1 și C2: Utilizator experimentat
Cadrul european comun de referinţă pentru limbi străine

Competențele digitale: Matlab / Simulink, MSC Adams, Catia, AutoCAD, MS Office, Solidworks, Simcenter AMESim, Simcenter 3D Motion, Python

Alte competenţe: Specializări:
Oct.-Nov. 1998, University of Gent, Belgia

Dec. 1999, Hochschule Bremen, Germenai
Februarie şi decembrier. 2000 training ADAMS (Mechanical Dynamics Inc., Praga) şi FlexTest (MTS System, Berlin).
Mai – Iunie 2001, Technical University of Budapest, Ungaria,
Mai 2002, University of Metz, Franţa,
Mai – Iulie 2004, Delft University of Technology, Olanda
Oct – Dec. 2005, Universidad La Coruna, Spania
Ian 2013, SZTAKI, Institute for Computer Science and Control, Budapesta, Ungaria
Sept-Oct. 2016, Jožef Stefan Institute, Ljubljana, Slovenia
Nov-Dec. 2020, Siemens Industry Software NV, Leuven, Belgia
Nov. 2022 Technical University of München, Germania.

INFORMAŢII SUPLIMENTARE

Activitatea științifică (întreaga carieră)
Cărți publicate: 5.
Lucrări publicate în reviste, conferințe și congrese naționale și internaționale: peste 150.
Contracte de cercetare naționale și internaționale: peste 20.
Coordonator proiecte de cercetare: 4.
Referent de lucrări ştiinţificei în multe reviste, conferințe naționale și internaționale.
Membru în comisiile științifice ale conferințelor internaționale (VIRMAN, EngOpt, InECCE, ICCA, Conat).
Prezentare tutorat industrial la TMCE 2008, Izmir.
Participări la activităţi didactice în universităţi străinătate: 2002 Universitatea din Metz, Franţa, 2009 Scuola Superiore Sant'Anna, Pisa, Italia (master internațional); 2023 Universitatea Cadi Ayyad, Marrakech, Maroc

Proiecte relevante
Proiecte de cercetare internaţionale

A Configurable Virtual Reality System for Multi-Purpose Industrial Manufacturing Applications, Project IRMA, FP5: IRMA - NAS GRD3-2001-61804, Febr. 2002 – Febr. 2004, Poziția: Director tehnic
Advanced Computer Aided Design of Ecological Products Tehnologies Integrating Green Energy Sources, Project ADEPT, GMA1-2002-72098, Nov. 2002 – Nov. 2005, Poziţia : Membru
Network of Excellence on Virtual Reality and Virtual Environments Applications for Future Workspaces, Network of excellence INTUITION, IST 507248-2/2004, Sept. 2004 – Sept. 2008, Poziția: Membru
Virtual Reality in Product Design and Robotics - Project VEGA, WP 6, Project nr. 16565, May 2005 – May 2008, Poziţia : Membru în comitetul de management
ARTreat: Multi-level patient-specific artery and atherogenesis model for outcome prediction, decision support treatment, and virtual hand-on trening, FP7-224297 – Large-scale Integrating Project(IP), sep. 2009 – aug. 2013, director tehnic - partener.

Proiecte naţionale

Real time simulation of multibody systems with regid and flexible elements, 2007, CNCSIS A, Code 937, May 2007 – Nov. 2008, Poziţia: Director
Virtual reality interface for linkage simulation using multibody theory - Project type AT, Code CNCSIS 170, January 2004 – Nov. 2005, Poziţia: Director
INCOGNITO: Cognitive interaction of human - virtual environment for engineering applications, CNCSIS Exploratory research projects IDEI, nr. 608, 2008-2011, Poziţia: Director
DILSimEV: Driver-In-the-Loop SIMulation for safety-critical testing scenarios of Electric Vehicles. Romanian Ministry of Education and Research, CCCDI – UEFISCDI, project number PN-III-P2-2.1-PED-2019-4366, PED 431, within PNCDI III, 2019 – 2021, Poziţia: Director
IREAL - Haptic interface for virtual prototyping in immersive environment CNCSIS Exploratory research projects IDEI 132/2007, 2007-2010, Poziţia: Membru

Publicaţii în ultimii 10 ani (selecție):

1. Butnariu,S., **Antonya, Cs.** (2015) Correction method for spine flexion tracking with markers. 4th International Workshop on Medical and Service Robot, MESROB 2015, July 8-10, 2015, Nantes, France. New Trends in Medical and Service Robots (pp. 265-275). Springer International Publishing. DOI: 10.1007/978-3-319-30674-2_20, ISBN 978-3-319-30673-5
2. Pozna, C., **Antonya, Cs.** (2015) Using Intelligent Computation for Modeling in Robotics. Congress on Information Technology, Computational and Experimental Physics, CITCEP 2015, December 18-20, 2015, Cracow, Poland.
3. Boboc, R.G., Dumitru, A.I., **Antonya, Cs.** (2015) Point-and-Command Paradigm for Interaction with Assistive Robots, International Journal of Advanced Robotic Systems, 2015, 12:75, pp. 1-13, ISSN 1729-8806, DOI: 10.5772/60582 (IF 0.526).
4. **Antonya, Cs.**, Butnariu, S., Beles, H. (2015) Parameter Estimation from Motion Tracking Data, Springer Lecture Notes in Computer Science, 2015 Digital Human Modeling. Applications in Health, Safety, Ergonomics and Risk Management: Ergonomics and Health, Springer Lecture Notes in Computer Science Volume 9185, 2015, pp. 113-121, DOI: 10.1007/978-3-319-21070-4_12, ISBN 978-3-319-21069-8.
5. Tolea, B., **Antonya, Cs.**, Beleș, H. (2015) Assesment of the injury severity of the pedestrian lower limbs at the collision with a vehicle, Annals of the Oradea University, Fascicle of Management and Technological Engineering, Volume XXIV (XIV), 2015/1, ISSN 1583 – 0691, pp. 153-156.
6. Groza, D., **Antonya, Cs.** (2015) Dynamically Spring Balanced Slider-Crank Mechanism for Reciprocating Machines, SSRG International Journal of Mechanical Engineering (SSRG-IJME) – volume 2 Issue 6–June 2015, ISSN: 2348 – 8360, pp. 48-52.
7. **Antonya, Cs.**, Butnariu, S., Beles, H. (2015) Geometric Identification of a Four-Bar Linkage from Noisy Tracking Data, Proceeding of The 14th IFToMM World Congress, Taipei, Taiwan, October 25-30, 2015, DOI Number: 10.6567/IFToMM.14TH.WC.OS2.012, ISBN 978-986-04-6098-8
8. Tolea, B., Trusca, D., **Antonya, Cs.**, Beles, H. The Influence of the Frontal Profile Design of a Vehicle upon the Pedestrian Safety at Low Velocity, Proceedings of the 26th DAAAM International Symposium, pp.1052-1058, B. Katalinic (Ed.), Published by DAAAM International, ISBN 978-3-902734-07-5, ISSN 1726-9679, Vienna, Austria, DOI: 10.2507/26th.daaam.proceedings.148
9. Tolea, B., Trusca, D., **Antonya, Cs.** (2016) Research Regarding Night-Time Pedestrian Visibility, Proceedings of the European Automotive Congress EAEC-ESFA 2015 (ed. Andreescu, C., Clenci, A.), pp. 749-755, DOI: 10.1007/978-3-319-27276-4_70, ISBN 978-3-319-27275-7, Springer International Publishing, 2016.
10. Pozna, C., **Antonya, Cs.** (2016) Issues about autonomous cars, 2016 IEEE 11th International Symposium on Applied Computational Intelligence and Informatics (SACI), pag.13-18. ISBN: 978-1-5090-2380-6 DOI: 10.1109/SACI.2016.7507360.
11. Butnariu ,S., Mogan, Gh., **Antonya, Cs.**, Girbacia, F.: A new approach to diagnosis and rehabilitation in spine diseases. VRIC 2016, 18th ed. Conference Laval Virtual 23-27 March 2016, ACM. ISBN: 978-1-4503-4180-6 DOI: 10.1145/2927929.2927951
12. **Antonya, Cs.**, Butnariu, S., Gams, M. (2016) Haptic Interface Design for Experiencing Ancient Works. Proceedings of the 19th International Multiconference INFORMATION SOCIETY – IS 2016 Volume F, pag. 16-19. 2016
13. **Antonya, Cs.**, Butnariu, S., Pozna, C. (2016) Real-time representation of the human spine with absolute orientation sensors, The 14th International Conference on Control, Automation, Robotics and Vision, ICARCV 2016, November 13 –15, 2016, Phuket, Thailand, ISBN: 978-1-5090-3549-6, DOI: 10.1109/ICARCV.2016.7838745.
14. Butnariu, S., Nica, S., Mogan, Gh., Mologhianu, G., **Antonya, Cs.** (2016) An algorithm to calculate the spine posture using a tracking mobile device, poster + abstract, Journal of Rehabilitation Medicine, Vol.48, Issue 55, aug. 2016, Abstract for The 10th International Society of Physical Rehabilitation World Congress ISPRM 2016, Kuala Lumpur, 29 May-2 June, 2016. DOI: 10.2340/16501977-2139
15. Tolea, B., Trusca, D.D., **Antonya Cs.**, Radu A.I., Dima D.S. (2016) Research Regarding Pedestrian Visibility During Night-Time Using Photo Processing. In: Chiru A., Ispas N. (eds) CONAT 2016 International Congress of Automotive and Transport Engineering. CONAT 2016. pp 881-888. Springer, Cham. 2016. ISBN 978-3-319-45446-7. DOI: 10.1007/978-3-319-45447-4_97
16. Tavčar, A., **Antonya, Cs.**, Butila, E. V. (2016) Recommender System for Virtual Assistant Supported Museum Tours. Informatica, 40(3), pag. 279-284, 2016. ISSN 0350-5596
17. Tolea, B., Radu, A.I., Beles, H., **Antonya, Cs.**: Influence of the geometric parameters of the vehicle frontal profile on the pedestrian's head accelerations in case of accidents, International Journal of Automotive Technology, Vol.19, No.1, February, 2018, pp. 85–98 pISSN 1229–9138, DOI 10.1007/s12239–018–0009–0
18. Irimia, C., Grovu, M., Husar, C., Fodorean, D., **Antonya, Cs.** (2017) Co-simulation Analysis for an Electric Vehicle Powered by a High-Speed Electrical Machine, 2017 IEEE Vehicle Power and Propulsion Conference

(VPPC), 11-14 Dec. 2017, Belfort, France. ISBN: 978-1-5386-1317-7. DOI: 10.1109/VPPC.2017.8331021, ISBN: 978-1-5386-1317-7

19. **Antonya, Cs.** (2017) Path Planning in Urban Area Using Local Features of the Road System, 2nd International Conference on Computational Modeling, Simulation and Applied Mathematics (CMSAM 2017), pp. 556-560, 2017, DEStech Transactions on Computer Science and Engineering. ISBN: 978-1-60595-499-8, ISSN: 2475-8841 DOI: 10.12783/dtcse/cmsam2017/16433.
20. Angi, N., Huminic, A., **Antonya, Cs.** (2018) Flight Control System Design and Analysis of a Light Sport Aircraft with Emphasis on Multibody Dynamics and Aerodynamic Analysis, INCAS Bulletin; Vol. 10, Iss. 2 (2018): 221-229. DOI: 10.13111/2066-8201.2018.10.2.20
21. **Antonya, Cs.** (2017) Capturing Revolute Motion and Revolute Joint Parameters with Optical Tracking. In IOP Conference Series: Materials Science and Engineering (Vol. 281, No. 1, p. 012064). IOP Publishing, 2017. DOI:10.1088/1757-899X/281/1/012064, ISSN: 1757-8981
22. Butnariu S., **Antonya Cs.** (2018) Methodology for Determining the Positions of the Human Spine Vertebrae. In: Doroftei I., Oprisan C., Pisla D., Lovasz E. (eds) New Advances in Mechanism and Machine Science. Mechanisms and Machine Science, vol 57. Springer, Cham, pp 201-210, DOI: 10.1007/978-3-319-79111-1_20, Print ISBN978-3-319-79110-4, Online ISBN978-3-319-79111-1
23. **Antonya Cs.**, Carabulea L., Pauna C. (2018) Predictive Actuation of a Driving Simulator. In: Burnete N., Varga B. (eds) Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018). Proceedings in Automotive Engineering. Springer, Cham, pp 128-135, DOI: 10.1007/978-3-319-94409-8_16, Print ISBN 978-3-319-94408-1, Online ISBN978-3-319-94409-8
24. Butnariu S., Mogan G., **Antonya Cs.** (2018) Using Inertial Sensors in Driver Posture Tracking Systems. In: Burnete N., Varga B. (eds) Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018). Proceedings in Automotive Engineering. Springer, Cham, pp 17-24, DOI: 10.1007/978-3-319-94409-8_2, Print ISBN978-3-319-94408-1, Online ISBN978-3-319-94409-8
25. **Antonya Cs.**, Butnariu S., Pozna C. (2019) Haptic Device with Decoupled Motion for Rehabilitation and Training of the Upper Limb. In: Abraham A., Gandhi N., Pant M. (eds) Innovations in Bio-Inspired Computing and Applications. IBICA 2018. Advances in Intelligent Systems and Computing, vol 939. Springer, Cham, pp 413-422, DOI: 10.1007/978-3-030-16681-6_41, Print ISBN978-3-030-16680-9, Online ISBN978-3-030-16681-6
26. Butnariu S., **Antonya Cs.**, Ursu P. (2019) Medical Recovery System Based on Inertial Sensors. In: Abraham A., Gandhi N., Pant M. (eds) Innovations in Bio-Inspired Computing and Applications. IBICA 2018. Advances in Intelligent Systems and Computing, vol 939. Springer, Cham, pp 395-405, pp 395-405, DOI: 10.1007/978-3-030-16681-6_39, Print ISBN978-3-030-16680-9, Online ISBN978-3-030-16681-6
27. Irimia C., **Antonya Cs.**, Grovu M., Husar C. (2019) Dynamic Analysis of the Stewart Platform for the Motion System of a Driving Simulator. In: Uhl T. (eds) Advances in Mechanism and Machine Science. IFToMM WC 2019. Mechanisms and Machine Science, vol 73. Springer, Cham, pp 3079-3086, ISBN 978-3-030-20130-2, DOI: 10.1007/978-3-030-20131-9_303
28. **Antonya Cs.**, Irimia C., Grovu M., Husar C., Ruba, M. (2019) Co-Simulation Environment for the Analysis of the Driving Simulator's Actuation, 7th International Conference on Control, Mechatronics and Automation (ICCMA), Delft, Netherlands, 2019, pp. 315-321, doi: 10.1109/ICCMA46720.2019.8988628.
29. Antonya,Cs. (2020), Graphical Tool for Positioning of Triads in Mechanisms, Journal of Physics: Conference Series, Volume 1624 052009, https://doi.org/10.1088/1742-6596/1624/5/052009
30. **Antonya Cs.**, Buzdugan I.D. (2020) Multimodal Environment for Studying the Behavior of Autonomous Vehicles in Traffic Situations. In: Auer M.E., Centea D. (eds) Visions and Concepts for Education 4.0. ICBL 2020. Advances in Intelligent Systems and Computing, vol 1314. Springer, Cham, 2020, ISBN978-3-030-67208-9, https://doi.org/10.1007/978-3-030-67209-6_37
31. Boboc, R.G.; Chiriac, R.-L.; **Antonya, Cs.** (2021) How Augmented Reality Could Improve the Student's Attraction to Learn Mechanisms. Electronics 2021, 10, 175. https://doi.org/10.3390/electronics10020175 (IF: 2.412)
32. Pridie A-C, **Antonya Cs.** (2021) The Theoretical Study of an Interconnected Suspension System for a Formula Student Car. Applied Sciences. 2021; 11(12):5507. https://doi.org/10.3390/app11125507 (IF:2.474)
33. **Antonya, Cs.**, Boboc, R. (2021). Computational efficiency of multi-body systems dynamic models. Robotica, Volume 39, Issue 12, December 2021, pp. 2333 – 2348. Doi:10.1017/S0263574721000345 (IF:2.406)
34. Boboc, R., **Antonya, Cs.** (2021) Using 3D printing and augmented reality for teaching and learning in mechanical engineering higher education, EDULEARN21 Proceedings, 13th annual International Conference on Education and New Learning Technologies, pp. 879-885, ISBN: 978-84-09-31267-2, ISSN: 2340-1117, 13th International Conference on Education and New Learning Technologies, 5th-6th July, 2021. doi: 10.21125/edulearn.2021.0236

35. Pozna, C. R., **Antonya, Cs.** (2021) Proposal of an Autonomous Vehicle Control Architecture. IEEE 25th International Conference on Intelligent Engineering Systems (INES), 2021, pp. 37-42, doi: 10.1109/INES52918.2021.9512914.
36. **Antonya Cs.**, Gîrbacia F., Postelnicu C., Voinea D., Butnariu S. (2021) Saliency Detection in a Virtual Driving Environment for Autonomous Vehicle Behavior Improvement. In: De Paolis L.T., Arpaia P., Bourdot P. (eds) Augmented Reality, Virtual Reality, and Computer Graphics. AVR 2021. Lecture Notes in Computer Science, vol 12980. pp 511-518, Springer, Cham. Doi:10.1007/978-3-030-87595-4_37 , ISBN978-3-030-87594-7.
37. Pozna C. R., **Antonya Cs.** and Horváth, E. (2021) Case Study on the Tactical Level of an Autonomous Vehicle Control, IEEE 2021 International Conference on Electrical, Computer, Communications and Mechatronics Engineering (ICECCME), 2021, pp. 1-6, doi: 10.1109/ICECCME52200.2021.9590868. ISBN:978-1-6654-1262-9
38. Pozna C. R., **Antonya Cs.** (2021) Interactive Simulation Program for Autonomous Vehicles. The Eurasia Proceedings of Science Technology Engineering and Mathematics. 2021; 16: 26-30. ISSN: 2602-3199, DOI: 10.55549/epstem.1052211
39. Butnariu, S., Gîrbacia, F., **Antonya, Cs.** (2021) "Transfer of Personal Driving Styles to Autonomous Vehicles" The International Conference on Technology, Engineering and Science (ICONTES 2021) Noiembrie 04-07, 2021 în Antalya, Turcia. Eurasia Proceedings of Science, Technology, Engineering & Mathematics (EPSTEM), Volume 16, Pages 69-76, ISSN: 2602-3199 DOI: 10.55549/epstem.1068550
40. Carabulea, L., Pozna, C., Antonya, C., Husar, C. and Băicoianu, A., (2022) The influence of the Advanced Emergency Braking System in critical scenarios for autonomous vehicles. The International SIAR Congress of Automobile and Transport Engineering – „Automotive and Integrated Transport Systems – AITS 2021, October 28-30, 2021, Chișinău, Republica Moldova. IOP Conference Series: Materials Science and Engineering (Vol. 1220, No. 1, p. 012045). IOP Publishing.
41. Buzdugan, ID., Roșu, IA., **Antonya, Cs.** (2023). Development of a Simulator Tool for Teaching the Autonomous Vehicles Behavior. 19th International Conference on Remote Engineering and Virtual Instrumentation (REV2022) – REV 2022, 28 Februarie - 2 Martie, 2022, Egipt, Cairo. In: Auer, M.E., El-Seoud, S.A., Karam, O.H. (eds) Artificial Intelligence and Online Engineering. REV 2022. Lecture Notes in Networks and Systems, vol 524. Springer, Cham. https://doi.org/10.1007/978-3-031-17091-1_8
42. Voinea, G.D; Boboc, R.G.; **Antonya, Cs.** (2022) Mixed Reality Tools for Education in The Metaverse. The International Conference on Education and New Developments (END) (END 2022), Iunie 18-20, 2022 în Madeira, Portugalia. Education and New Developments 2022 – Volume 2, Pages 249-251, ISSN 2184-1489, ISSN 2184-044X, ISBN: 978-989-53614-5-8. DOI: 10.36315/2022v2end056
43. Boboc, R.G.; Voinea, G.D.; Buzdugan, I.-D.; **Antonya, Cs.** (2022) Talking on the Phone While Driving: A Literature Review on Driving Simulator Studies. Int. J. Environ. Res. Public Health 2022, 19, 10554. (FI 4,614) https://doi.org/10.3390/ijerph191710554
44. Voinea, GD, Gîrbacia, F, Postelnicu, CC, Duguleana, M, Antonya Cs, Soica A, Stănescu, R-C. (2022) Study of Social Presence While Interacting in Metaverse with an Augmented Avatar during Autonomous Driving. Applied Sciences. 2022; 12(22):11804. https://doi.org/10.3390/app122211804
45. **Antonya, Cs.**; Butnariu, S. (2022) Preservation of Cultural Heritage Using Virtual Reality Technologies and Haptic Feedback: A Prototype and Case Study on Antique Carpentry Tools. Appl. Sci. 2022, 12, 8002. (FI 2.838) https://doi.org/10.3390/app12168002
46. Rosu, I.A; Buzdugan, I.D.; Carabulea, L.; **Antonya, Cs.** (2022) Simulation of a Pedestrian Collision Avoidance Using the Pedestrian Protection System Publicat la 9th International Congress Motor Vehicles and Motors 2022, University of Kragujevac Faculty of Engineering, 13 -14 Octombrie 2022, Kragujevac, Republica Serbia, ISBN 978-86-6335-096-0
47. **Antonya, Cs.**, Husar, C., Butnariu, S., Pozna, C., Băicoianu, A. (2023). Driver-in-the-Loop Simulator of Electric Vehicles. In: Nathanail, E.G., Gavanas, N., Adamos, G. (eds) Smart Energy for Smart Transport. CSUM 2022 pp 135–142. Lecture Notes in Intelligent Transportation and Infrastructure. Springer, Cham. https://doi.org/10.1007/978-3-031-23721-8_11. ISBN 978-3-031-23720-1
48. Voinea G.D., Boboc R.G., Buzdugan I.D., **Antonya Cs.**, Yannis G. (2023) Texting While Driving: A Literature Review on Driving Simulator Studies. International Journal of Environmental Research and Public Health. 2023 Feb 28;20(5):4354.
49. Buzdugan I-D, Butnariu S, Roșu I-A, Pridie A-C, **Antonya Cs.** (2023) Personalized Driving Styles in Safety-Critical Scenarios for Autonomous Vehicles: An Approach Using Driver-in-the-Loop Simulations. Vehicles. 2023); 5(3):1149-1166. (FI. 2.2) https://doi.org/10.3390/vehicles5030064
50. Rosu, I.A; Buzdugan, I.D.; Carabulea, L.; **Antonya, Cs.** (2023) Simulation of a Pedestrian Collision Avoidance Using the Pedestrian Protection System. Mobility & Vehicle Mechanics MVM, Vol. 49, No. 2, (2023), pp 13-26, DOI: 10.24874/mvm.2023.49.02.02, ISSN 1450 – 5304.
51. Rosu, I.A; Carabulea, L.; Buzdugan, I.D.; **Antonya, Cs.** (2023) Time-to-collision for the Pedestrian Protection

System simulation. Transportation Research Procedia, Volume 74, 2023, Pages 1325-1332 ISSN 2352-1465, https://doi.org/10.1016/j.trpro.2023.11.278.

52. Pridie A-C, Buzdugan, I.D., **Antonya Cs.** (2023) "Study on the Impact of Physical Parameters on the Performance of a Vehicle with an Interconnected Suspension System," 2023 IEEE 28th International Conference on Emerging Technologies and Factory Automation (ETFA), Sinaia, Romania, 2023, pp. 1-8, doi: 10.1109/ETFA54631.2023.10275555.
53. Buzdugan, ID., Roșu, IA., Scurt, F.B., **Antonya, Cs.** (2024). Adaptive Decision-Making Framework for Autonomous Vehicles: A Reinforcement Learning Approach to Urban Traffic Safety. In: Chiru, A., Covaciu, D. (eds) CONAT 2024 International Congress of Automotive and Transport Engineering. CONAT 2024. Proceedings in Automotive Engineering. Springer, Cham. https://doi.org/10.1007/978-3-031-77635-9_12
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