

INFORMAȚII PERSONALE



Alexandru Ionut RADU

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EXPERIENȚA PROFESIONALĂ

13.12.2023 - Prezent

Expert Tehnic Judiciar – Autovehicule, Circulație Rutieră

25.02.2019 - Prezent

Șef Lucrări

Universitatea TRANSILVANIA din Brașov, Brașov

▪ Cadru didactic

01.10.2018 – 24.02.2019

Cadru didactic asociat

Universitatea TRANSILVANIA din Brașov, Brașov

▪ Cadru didactic

13.06.2011 – 1.07.2011

Mecanic Auto

SC TESS VOLSKWAGEN SRL Ghimbav

▪ Practica in cadrul Facultății de Inginerie Mecanica

13.06.2011 – 1.07.2011

Mecanic Auto

SC Auto SIMA Bayer SRL Focșani

▪ Practica in cadrul Grupului Școlar de Transporturi Auto

EDUCAȚIE ȘI FORMARE

1.10.2014 – 16.03.2018

Diploma de doctor

Universitatea TRANSILVANIA din Brașov, Facultatea de Inginerie Mecanica

01.10.2012 – 12.07.2014

Diploma de Master - Securitate Rutiera, Transport si Interacțiunea cu Mediul

Universitatea TRANSILVANIA din Brașov, Facultatea de Inginerie Mecanica

15.09.2004 – 10.07.2008 **Diploma de Licența - Ingineria transportului si traficului**
 Universitatea TRANSILVANIA din Brașov, Facultatea de Inginerie Mecanica
 Sisteme de transport
 - Mecanica auto
 - Sisteme de trafic
 - Proiectare in softul Proengineer
 - Reconstrucția accidentelor de circulație

01.10.2008 – 11.07.2012 **Diploma de Bacalaureat - specializarea: Tehnician Mecatronist**
 Grup Școlar Transporturi Auto Focșani, Focșani
 Desen tehnic
 - Măsurători tehnice
 - Electrotehnica
 - Automobile

COMPETENTE PERSONALE

Limba(i) maternă(e) Romana

Alte limbi străine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
Engleza	C1	C1	C1	C1	C1
Certificat de competente lingvistice					
Germana	A1	A1	A1	A1	A1

Niveluri: A1/2: Utilizator elementar - B1/2: Utilizator independent - C1/2: Utilizator experimentat
 Cadrul european comun de referință pentru limbi străine

Competente de comunicare Foarte bune competente de comunicare ca urmare a participării in echipa de cercetare din cadrul Facultății de Inginerie mecanica

Competente organizaționale/manageriale bun organizator al unei echipe ca urmare a participării a unor experimente efectuate in cadru facultății cu echipa de studenți

Competente dobândite la locul de muncă

- Dezvoltarea abilitații de predare si organizare a grupurilor de studenți in sala de clasa si laborator
- Scrierea de articole științifice si lucrări practice
- Utilizarea platformei de predare online
- Organizarea si susținerea examenelor
- Organizarea si finalizarea proiectelor de diploma cu studenții
- O foarte buna cunoaștere a domeniului de proiectare virtuala
- O cunoaștere buna in domeniul de mecanica auto

Competente informatice

Softuri de proiectare tip CAD (Solidworks, Catia V5, Autodesk Inventor, Autocad)
Buna stăpânire a programelor de calcul matematic (MATLAB , Simulink)
Buna stăpânire a programelor de simulare multicorp (ADAMS, Simscape Multobody)
Buna stăpânire a programelor de calcul FEA (Ansys, Solidworks Simulation)
Buna stăpânire a utilizării softurilor de simulare a traficului (Anylogic, Synchro 7)
Foarte buna stăpânire pentru softul de simulare a accidentelor PC-CRASH
Mentenanța software a sistemului de operare Windows
IT - Hardware and Software Suport
Bună stăpânire a instrumentelor Microsoft Office (Word, Excel, Power Point)
Buna stăpânire a limbajelor de programare: Visual Basic si C++

Alte competente

Nivel mediu in domeniul mecanica auto, sudura si prelucrari mecanice
 Nivel mediu in domeniul de electrica si electronica
 Vedere buna in ansamblu, si in spatiu, cu orientare foarte buna, cu specializare in domeniul de proiectare virtuala si a desenului tehnic
 Cunoastere buna a domeniilor :Matematica, Managemet-ul Traficului Rutier si Telematica, Orgne de masini, Motoare, Desen Tehnic.

INFORMATII SUPLIMENTARE

Publicatii

Publicarea a 30 articole stiintifice indexate ISI web of knowlege si BDI dintre care 18 ca prim autor.

Radu, A. I., Tolea, A. B., Trusca, D. D., Ispas, N., & Nastasoiu, M. (2023). Development of a Multibody Model Used to Study the Impact Between a Vehicle Wheel with a Pothole. *International Journal of Automotive Technology*, 24(5), 1441-1446.

Radu A. I., Toganel G., Trusca D., 2021, Mathematical model validated by a crash test to be used as kinematic and dynamic study for side impacts, *International Journal of Automotive Technology*, Acceptata spre publicare

Radu, A. I., Cofaru, C., Tolea, B., & Popescu, M. (2018). Development of a new recline mechanism in order to reduce the "whiplash" effect using a virtual model. *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of automobile engineering*, 232(12), 1701-1712, Factor de impact: 1.253.

Radu A. I., Corneliu, C., & Bogdan, T. (2017). Mathematical model validated by a crash test for studying the occupant's kinematics and dynamics in a cars' frontal collision. *International Journal of Automotive Technology*, 18(6), 1017-1025, Factor de impact: 0.588.

Tolea, B., Radu, A. I., Beles, H., & Antonya, C. (2018). 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*, 19(1), 85-98, Factor de impact: 0.588.

Radu, A. I., Trusca, D., & Toganel, G. (2018, November). Influence of tire pressure on the braking distance when driving on snow and asphalt. In *IOP Conference Series: Materials Science and Engineering* (Vol. 444, No. 7, p. 072013). IOP Publishing.

Radu, A. I., Cofaru, C., Tolea, B., & Popescu, M. (2017, October). Study regarding seat's rigidity during rear end collisions using a MADYMO occupant model. In *IOP Conference Series: Materials Science and Engineering* (Vol. 252, No. 1, p. 012004). IOP Publishing.

Tolea, B., Tarulescu, S., Trusca, D. D., Toganel, G., & Radu, A. I. (2016, October). The Assessment of the Head Injury of a Pedestrian in Comparison with a Cyclist. In *International Congress of Automotive and Transport Engineering* (pp. 805-811). Springer, Cham.

RADU, A. I., TRUSCA, D. D., TOGANEL, G., & BENEÄ, B. (2020). STUDY REGARDING THE SIDE IMPACT CONSEQUENCES UPON THE VEHICLE OCCUPANT USING ACCIDENT RECONSTRUCTION SOFTWARE. *Journal of Automotive Engineering*, 41.

TOLEA, B. A., RADU, I., DIMA, D. S., & BELEŞ, H. (2018). The influence of the suspension upon the axle weight distribution for heavy trucks. *Journal of Automotive Engineering*, 75.

Radu, A. I., Cofaru, C., Tolea, B., Trusca, D. D., & Toganel, G. (2016, October). Research Regarding the Influence of Vehicle's Safety Restraint Systems on Its Occupants in Case of Rear-End Collision. In *International Congress of Automotive and Transport Engineering* (pp. 798-804). Springer, Cham.

Publicatii

Radu, A. I., Trusca, D. D., & Toganel, G. (2020). Prediction Model For Sedan Class Vehicle Braking Distance On A Flat Surface Using Experimental Braking Tests For Different Road Surfaces. *Journal of Automotive Engineering*, 89.

Condrea, O. A., Chiru, A., Togănel, G., Radu, I. A., & Chiriac, R. L. (2020). CYCLIST HEAD TO WINDSHIELD IMPACT ANALYSIS. DEFORMATION AND PERFORATION CASE STUDY. *Journal of Automotive Engineering*, 21.

Manea, L. C., Manea, A., Radu, A. I., & Dima, D. S. (2019, October). Analysis of Occupant Injury Level in the Case of High-Speed Vehicle Slide-Spinning Collision. In *SIAR International Congress of Automotive and Transport Engineering: Science and Management of Automotive and Transportation Engineering* (pp. 312-321). Springer, Cham.

Tolea, B. A., Radu, A. I., Beles, H., Dragomir, G., & Moca, S. (2019, October). Study of a Car-to-Pedestrian Collision in Case of Vehicle's Post-impact Braking. In *SIAR International Congress of Automotive and Transport Engineering: Science and Management of Automotive and Transportation Engineering* (pp. 375-382). Springer, Cham.

Benea, B. C., Trusca, D. D., Togănel, G. R., & Radu, A. I. (2019, October). The Influence of the Color of the Reflective Vest on the Visibility of the Cyclist at Night. In *SIAR International Congress of Automotive and Transport Engineering: Science and Management of Automotive and Transportation Engineering* (pp. 359-365). Springer, Cham.

Togănel, G. R., & Radu, A. I. (2019, October). The Influence of the Color of the Reflective Vest on the Visibility of the Cyclist at Night. In *The 30th SIAR International Congress of Automotive and Transport Engineering: Science and Management of Automotive and Transportation Engineering* (p. 359). Springer Nature.

Radu, A. I., Trusca, D. D., Toganel, G., & Tolea, B. (2019). Efficiency Analysis of Passive Safety Systems in Vehicles in the Case of Frontal Collision Using Experimental Tests. *Journal of Automotive Engineering*, 55.

Bogdan, T., Radu A. I., & Horia, B. (2018, October). The Overlap Influence in Case of a Car-to-Pedestrian Accident. In *International Congress of Automotive and Transport Engineering* (pp. 820-827). Springer, Cham.

Radu, A. I., Cofaru, C., Tolea, B., Trusca, D. D., & Beles, H. (2016, October). Research Regarding Occupant's Movement in the Case of Frontal Collision Using High-Speed Video Recording. In *International Congress of Automotive and Transport Engineering* (pp. 790-797). Springer, Cham.

Tolea, B., Trusca, D. D., Antonya, C., Radu, A. I., & DIMA, D. S. (2016, October). Research Regarding Pedestrian Visibility During Night-Time Using Photo Processing. In *International Congress of Automotive and Transport Engineering* (pp. 881-888). Springer, Cham.

Radu, A. I., & Cofaru, C. (2015). Study of current state of crash testing. *Bulletin of the Transilvania University of Brasov. Engineering Sciences. Series I*, 8(2), 31.

Radu, A. I., & Tolea, B. A. (2020, July). Comparison of passenger vehicle braking distance when travelling on snow and asphalt at different velocities. In *IOP Conference Series: Materials Science and Engineering* (Vol. 898, No. 1, p. 012002). IOP Publishing.

RADU, A. I., Cofaru, C., Tolea, B., TRUSCA, D. D., & Beles, H. (2016). Study Regarding Visibility Geometry in Vehicles' Rear-View Mirrors.

Radu, A. I., Trusca, D. D., Tolea, B. A., & Cofaru, C. (2016). Research Regarding the Effects of Emergency Vehicle Braking upon Its Occupants. In *Proceedings of the European Automotive Congress EAEC-ESFA 2015* (pp. 757-764). Springer, Cham.

Publicatii

Radu, A. I., Trusca, D. D., Toganel, G. R., & Benea, B. C. (2020, December). Designing and testing a stand used to simulate the dummy head impact with different surfaces using CAD software. In IOP Conference Series: Materials Science and Engineering (Vol. 997, No. 1, p. 012058). IOP Publishing.

Benea, B. C., Trusca, D. D., Toganel, G. R., & Radu, A. I. (2019, August). Pedestrian visibility at night: the influence of the pedestrian clothing and the defective headlamp of the car. In IOP Conference Series: Materials Science and Engineering (Vol. 568, No. 1, p. 012003). IOP Publishing.

Radu, A. I., Trusca, D. D., Toganel, G. R., & Benea, B. (2019, August). Study regarding the influence of passive safety systems on the occupant in the case of Automatic Emergency Braking System activation. In IOP Conference Series: Materials Science and Engineering (Vol. 568, No. 1, p. 012052). IOP Publishing.

Radu, A. I., Cofaru, C., Tolea, B., & Dima, D. (2018). Study regarding the influence of airbag deployment time on the occupant injury level during a frontal vehicle collision. In MATEC Web of Conferences (Vol. 184, p. 01007). EDP Sciences.

Radu A. I., Corneliu, C., & Bogdan, T. (2017). Influence of Head Restraint Position in case of Rear End Collision and its Effects upon the Whiplash Phenomenon. International Journal of Engineering Research & Technology 6 (09), 154-161.

TRUSCA, D., TOLEA, B., & RADU, I. RESEARCH REGARDING THE SEVERITY OF THE INJURY OF THE PEDESTRIAN'S HEAD WITH THE VEHICLE'S BONNET.

Publicatii

Indrumar laborator:

RADU Alexandru Ionut, Florea Daniela, *Proiectarea intersecțiilor – Îndrumar de laborator*, 2023, Editura Universității TRANSILVANIA din Brașov, ISBN 978-606-19-1655-9

Indrumar laborator:

RADU Alexandru Ionut, GARBACIA Florin Stelian, *Informatica Aplicata – Aplicatii practice*, 2018, Editura Universității TRANSILVANIA din Brașov, ISBN 978-606-19-1095

Indrumar de laborator

RADU Alexandru Ionut, TOGANEL George, TRUSCA Daniel, *Modelarea coliziunilor in mediul virtual : indrumar de laborator*, 2020, Editura Universitatii TRANSILVANIA din Brasov, ISBN 978-606-19-1271-1

Volum de specialitate

TOLEA Bodgan Adrian, RADU Alexandru Ionut, *Aspecte privind reconstructia accidentelor rutiere*, 2019, Editura Universitatii din Oradea, ISBN 978-606-10-2029-4