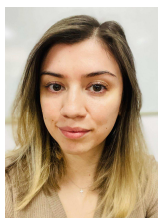


## PERSONAL INFORMATION

## Gheorghe Carmen



 Braşov, Romania

 [carmen.gheorghe@unitbv.ro](mailto:carmen.gheorghe@unitbv.ro)

Sex Feminine | Nationality Romanian

## PROFESSIONAL EXPERIENCE

01.10.2024 - present

## Lecturer

Transilvania University of Braşov, B-dul Eroilor No. 29, 500036, Braşov, Romania  
Faculty of Mechanical Engineering  
Department of Automotive and Transport Engineering  
<https://mecanica.unitbv.ro/>

- Teaching activities for lectures and laboratories in the following subjects:
  - Passive Safety of Vehicles (Bachelor's level)
  - Traffic Flow Theory (Master's level)
- Laboratory teaching activities in the following subjects:
  - Road Traffic Management and Telematics I (Bachelor's level)
  - Road Traffic Management and Telematics II (Bachelor's level)
  - Vehicle Fleet Maintenance I and II (Bachelor's level)
- Project supervision and teaching in the following subject:
  - Bodywork and Passive Safety Systems (Bachelor's level)

Type or sector of activity: Higher Education  
Experience in Distance/Part-Time Education (ID/IFR): No

15.11.2021 – 01.06.2024

## Project Manager

S.C. Autoliv România S.R.L., Armatei Române 58, Sfântu Gheorghe, România  
<http://www.autoliv.com>

- Project coordination in the steering wheel division for the Volkswagen Group customer
- Project-specific activity planning using the waterfall methodology
- Project budget planning and agreement with the customer
- Frequent communication and contact with the customer
- Monitoring the implementation of activities in production

01.10.2023 – 15.02.2024

## Part-time Lecturer

Transilvania University of Braşov, B-dul Eroilor No. 29, 500036, Braşov, Romania  
Faculty of Mechanical Engineering  
Department of Automotive and Transport Engineering  
<https://mecanica.unitbv.ro/>

- Teaching activities for lectures and laboratories in the following subjects:
  - Passive Safety of Vehicles (Bachelor's level)
  - Traffic Flow Theory (Master's level)

Type or sector of activity: Higher Education  
Experience in Distance/Part-Time Education (ID/IFR): No

20.02.2019 – 05.11.2021

## University Teaching Assistant

Technical University of Cluj – Napoca, B-dul Muncii 103-105, Cluj Napoca, România

Faculty of Automotive, Mechatronics and Mechanics

Department of Automotive and Transports

<https://www.utcluj.ro/>

Laboratory teaching activities in the following subjects:

- Road Traffic Engineering
- Road Infrastructure
- Multimodal Transport
- Transport Terminals
- Vehicle Reliability and Terotechnology
- Vehicle Fleet Management

Type or sector of activity: Higher Education

Experience in Distance/Part-Time Education (ID/IFR): No

01.10.2017 – 05.11.2021

### Research Assistant

Technical University of Cluj – Napoca, B-dul Muncii 103-105, Cluj Napoca, România

Faculty of Automotive, Mechatronics and Mechanics

Department of Automotive and Transports

<https://www.utcluj.ro/>

- Development and publication of scientific papers (as listed in the publications list)
- Participation in the development of traffic studies for third-party clients in the economic sector, as a team member:
  - Traffic data collection
  - Statistical processing of traffic data
  - Road traffic modeling and simulation using Synchro software
  - Analysis of greenhouse gas (GHG) emissions

28.11.2016 – 20.09.2017

### Road Traffic Engineer

S.C. C.N.A.I.R. S.A. – Road Technical Studies and Informatics Center – CESTRIN - Bulevardul Iuliu Maniu 401A, București, România

<https://cestrin.ro/>

- Collection and centralization of traffic data from all National Road Sections (SDN)
- Development of traffic statistics for public roads in Romania
- Organization of Origin-Destination traffic surveys
- Mapping on the QGIS platform

30.08.2016 – 20.11.2016

### Automotive Engineer

S.C. HaynesPro S.R.L., Strada Ritoride 5, București, România

<https://www.haynespro.com/>

- Technical writer for automotive technical books

24.10.2014 – 21.07.2016

### Transport planning technician

S.C. RATBV S.A., str. Hărmanului nr. 49, Brașov, România

<https://ratbv.ro/>

Department of Monitoring and Traffic Safety

- Development of transport routes on GIS platforms (QGIS, ArcGIS, Google Maps)
- Development and coordination of travel schedules
- Centralization of petitions and complaints related to public urban transport schedules and routes

## EDUCATION

01.10.2017 – 25.03.2022

### Doctoral degree

Technical University of Cluj – Napoca, România

Doctoral School of Mechanical Engineering and Mechatronics

Development and public defense of the doctoral thesis titled "Research regarding Image Processing with Applications in Road Traffic". <https://doctorat.utcluj.ro/theses/364/ro>

01.03.2016 – 22.06.2016

### Erasmus+ Mobility

University of Applied Sciences, Konstanz, Germania

Development of the dissertation titled "Comparative Analysis of Public Transport in the Cities of Braşov (Romania) and Konstanz (Germany)"

01.10.2014 – 22.06.2016

### Master degree

Faculty of Mechanical Engineering

Department of Automotive and Transport Engineering

Road Security, Transports and the Interaction with the Environment

Main subjects studied:

- Traffic Flow Theory
- Intelligent Transport Systems
- Geographic Information Systems
- Traffic Accident Dynamics, Analysis, and Modeling

01.10.2010 – 10.07.2014

### Engineer degree

Faculty of Mechanical Engineering

Department of Automotive and Transport Engineering

Transport and Traffic Engineering

Main subjects studied:

- Road Traffic Management and Telematics
- Multimodal Transport
- Automobiles
- Machine Components

15.09.2006 – 17.07.2010

### High School Diploma

National College „Ana Aslan”, Brăila, România

- Natural Sciences Profile

## PERSONAL SKILLS

Native language

Romanian

Other Foreign Languages Known

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Conversation	Oral Speech	
English	B2	B2	B2	B2	B2

Levels: A1/A2: Basic User - B1/B2: Independent User - C1/C2: Proficient User  
Common European Framework of Reference for Languages

Communication skills

- Excellent communication skills, acquired through experience as a university teaching assistant and later as a project manager .

## Organisational / Managerial Skills

- Team coordination involving individuals from multiple key roles – gained through experience as a project manager
- Strong organizational skills in managing multiple tasks simultaneously – developed through experience as a research assistant and later as a project manager
- Team development by identifying training needs – acquired through experience as a project manager
- Implementation of complex strategies and adjustment of plans based on client-requested changes – gained through experience as a project manager

## Job-Related Skills

- Student evaluation – skill acquired through the role of university teaching assistant
- Project activity coordination for international clients – skill acquired through the role of project manager
- Statistical data analysis – skill acquired through the role of road traffic engineer
- Strategic thinking, with the ability to see the big picture and develop long-term strategies – skill acquired through the role of project manager

## Digital skills

Good knowledge of:

- Microsoft Office
- Microsoft Project
- Power Bi
- Synchro
- QGIS
- AutoCAD

## Other skills

- Completion of Psycho-Pedagogical Training Program Levels I and II – Technical University of Cluj-Napoca (U.T.C.N.), academic year 2019–2020
- Completion of Specialization Program for the Occupation of Project Manager (COR 242101)

## Driving licence

- Cat. B

## ADDITIONAL INFORMATION

## Publications

**Gheorghe, C.**, Comparative analysis of the performance of one-way and two-way urban road networks. CAR 2017 - International Congress of Automotive and Transport Engineering, IOP Conf. Ser.: Mater. Sci. Eng. 252 012056 doi: 10.1088/1757-899X/252/1/012056, ISSN: 1757-8981 <https://iopscience.iop.org/article/10.1088/1757-899X/252/1/012056>

**Gheorghe C.**, Filip N., Research regarding on Choosing Optimal Traffic Organization Using Ranking Criteria - Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), pg. 775-783, Springer, Cham, ISSN 2524-7778, [https://doi.org/10.1007/978-3-319-94409-8\\_90](https://doi.org/10.1007/978-3-319-94409-8_90), <http://amma2018.ro/index.php/amma/2018/paper/view/115>, [https://link-springer-com.am.e-nformation.ro/chapter/10.1007/978-3-319-94409-8\\_90](https://link-springer-com.am.e-nformation.ro/chapter/10.1007/978-3-319-94409-8_90)

Muresan G.S., **Gheorghe C.**, Filip N., Road Traffic Studies for Urban Development, SIAR International Congress of Automotive and Transport Engineering: Science and Management of Automotive and Transportation Engineering (SMAT 2019), pg. 304-311, Springer, Cham, ISBN 978-3-030-32564-0, [https://doi.org/10.1007/978-3-030-32564-0\\_36](https://doi.org/10.1007/978-3-030-32564-0_36), <https://www.springerprofessional.de/en/road-traffic-studies-for-urban-development/17275664>

**Gheorghe C.**, Filip N., Image Processing Applied in Road Traffic Using a Quadcopter, The 30th SIAR International Congress of Automotive and Transport Engineering. SMAT 2019. Springer, Cham, [https://doi.org/10.1007/978-3-030-32564-0\\_35](https://doi.org/10.1007/978-3-030-32564-0_35), ISBN 978-3-030-32564-0, <http://www.smat2019.ro/index.php/smat/2019/paper/view/35>

**Gheorghe, C.**, Deac, T. A., Filip, N., Image processing techniques used in soil moisture analysis, INMATEH-Agricultural Engineering 2019 Vol.58 No.2 pp. 147-154 ref.12, ISSN : 2068-4215, DOI10.35633/INMATEH-58-16

**Gheorghe C.**, Filip N., Image processing technique used in road traffic analysis – opportunities and challenges, Acta Technica Napocensis, Series: Applied mathematics, mechanics and engineering, Vol 64, Issue Special II, Pp. 345-350, 2021, ISSN1221-5872, <https://atna-mam.utcluj.ro/index.php/Acta/article/view/1532>

**C. Gheorghe** and N. Filip, Road Traffic Analysis Using Unmanned Aerial Vehicle and Image Processing Algorithms, 2022 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), Cluj-Napoca, Romania, 2022, pp. 1-5, doi: 10.1109/AQTR55203.2022.9802058. <https://ieeexplore.ieee.org/document/9802058>

Voinea, G.-D.; Gîrbacia, F.; Duguleană, M.; Boboc, R.G.; **Gheorghe, C.** Mapping the Emergent Trends in Industrial Augmented Reality. Electronics 2023, 12, 1719. **SRI 0.851**. <https://doi.org/10.3390/electronics12071719>

**Gheorghe C**, Boboc RG, Gîrbacia F, Șoica A. Above the roads: Unleashing unmanned aerial vehicles and image processing for traffic analysis. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering. 2024;0(0). **SRI 0.636**  
doi:10.1177/09544070241263881.

**C. Gheorghe**, N. Filip, Research regarding on how to assess traffic congestion in relation to vehicle speed and flow rate, The 4th International Congress of Automotive and Transport Engineering, AMMA 2018, UT Press, ISBN 978-606-737-314-1.

**Carmen Gheorghe**, Nicolae Filip, Vehicle detection and counting using image processing technique, 1st Conference on Advanced Research in Engineering, CARE 2020, Editura Universitaria Craiova, ISSN 2734-7400.

**Carmen GHEORGHE**, Caroserii, cadre și sisteme de siguranță pasivă, Editura Universității Transilvania din Brașov, 2024, ISBN 978-606-19-1712-9