

PERSONAL INFORMATION

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WORK EXPERIENCE

01/10/2012–Present

Full Professor (Former: Assistant Professor, Associate Professor)

Transilvania University of Brasov, Brasov (Romania)

High Education Teaching and Research in Forest Hydrology, Watershed Management, Hydrotechnical Constructions, Remote Sensing and GIS

01/06/2022–Present

Corresponding Member (Former: Associate Member)

Academy of Agricultural and Forestry Sciences "Gheorghe Ionescu-Sisesti" (A.S.A.S.)

Research and dissemination of top research in forestry (remote sensing and watershed management)

01/10/2008–Present

Business partner (Former: Forest Technician, Forest Engineer)

SC FOREST DESIGN SRL, Brasov (Romania)

Coordinating GIS projects, designing webGIS and Geoportals, coordinating research and development projects

01/07/2014–01/04/2015

Member of Technical-Economical Commission from Waters and Forests Department

Ministry of Environment and Climate Change, Bucharest (Romania)

Member of Technical-Economical Commission from Waters and Forests Department, acting as an advisory body in matters of promotion, implementation, financing and monitoring of investment in forest and water domain.

01/10/2016–01/03/2017

Fulbright Visiting Professor

University of Wisconsin-Madison, (USA)

Research in Remote Sensing in Forestry

01/06/2015–Present

Editorial Board Member

Annals of Forest Research, Remote Sensing, Forests, Bucovina Forestiera,

Review articles submitted to journal, coordinating special issues

EDUCATION AND TRAINING

22/11/2018

Habilitation in Agricultural and Forestry Sciences, Silviculture Branch

Transilvania University of Brasov, Brasov (Romania)

01/10/2008–01/10/2011 **PhD Diploma in Agricultural and Forestry Sciences, Silviculture Branch, Torrential watershed management Domain**
Transilvania University of Brasov, Brasov (Romania)

19/09/2007–21/09/2007 **Environmental Governance in Eastern Europe**
Jesus College, Oxford (United Kingdom)

01/10/2003–01/06/2008 **Forest Engineer**
Faculty of Silviculture and Forest Engineering, Brasov (Romania)

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Spanish	A2	A2	A1	A1	A1
Russian	A1	A1	A1	A1	A2

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

Communication skills

- Good communication skills gained through my experience at Forest Design
- Excellent contact skills with students through my experience as Professor

Organisational / managerial skills

- Leadership - currently responsible for a team of 8 people
- Good organisational skills gained as part of organizing committee for International Symposium "Forest and Sustainable Development" in 2008, 2010, 2012, 2014

Job-related skills

Skills in GIS, Remote Sensing, Spatial Analysis, Research in Geomatics, Environmental Science, Cartography, Data Analysis, Spatial Databases

Digital competence

- Very Good command of Geoprocessing tools and GIS software (ArcGIS, SagaGIS, QGIS)
- Very Good command of Remote Sensing software (ENVI, SCP, Orfeo Toolbox, GrassGIS)
- Very good command of office suite (word processor, spreadsheet, presentation software)

ADDITIONAL INFORMATION

Project manager

- 2024-2026 G4B: Grasslands for biodiversity: supporting the protection of the biodiversity-rich grasslands and related management practices in the Alps and Carpathians - Project manager UNITBV partner- Biodiversa+ UEFISCDI – 90k EUR out of 1,6 mil. EUR - www.grass4b.com
- 2024-2027 DNSH2: The effects of torrent control dams on the geomorphology, soil and flora of the riverbed. Case studies in the watershed of the national forest managed by the National Forest Administration – ROMSILVA – Project Manager – NFA – Romsilva – 60 k EUR
- 2022-2027 ForestPaths - Co-designing Holistic Forest-based Policy Pathways for Climate Change Mitigation. Project Manager UNITBV. Horizon Europe. 130K EUR out of 5,6 mil. EUR - <https://forestpaths.eu/>
- 2022-2025 SDG-Eyes - Sustainable Development Goals – Enhanced monitoring through the family of copErmicus Services - Project Manager FDR – Horizon Europe – 75K EUR out of 2.8 mil EUR = <https://sdgs-eyes.eu/>
- 2022 – 2023 DNSH1: Study of environmental effects due to torrent control structures located in small, predominantly forested watersheds – ROMSILVA – Project Manager – NFA Romsilva – 40k EUR <https://silvic.unitbv.ro/ro/admitere/admitere-masterat/451-dronsat.html>
- 2017 – 2018 DRONSAT: Quantifying the dynamics of forests in the long and short term by satellite remote sensing and aerial images taken by drones – Project Manager – UNITBV - 5k EUR
- 2018 – 2020 Academic support services for Rectify and Mosaic 700 Corona Satellite images - Project Manager - University of Wisconsin – Madison NASA Funded Project. 25k EUR <https://lcluc.umd.edu/projects/long-term-land-degradation-caucasus>
- 2014 – 2016 SEEAT Ecological solutions for managing torrential valleys from ROSCI0207 Postăvaru, ROSCI0195 Piatra Mare și ROSCI0038 Ciucaș protected sites. Project manager UNITBV – Funds covered by UEFISCDI 21k EUR out of 150k EUR
- 2012 GIS database of the forest areas managed by the RPL Padurile Fagarasului R.A. Forest Management Unit" - Funds covered by WWF (World Wide Fund) - Project manager – 5k EUR
- 2009 Hydrological mapping of the vegetation in order to establish the flood risk zones in predominantly forested watersheds – Fund covered by "8 band challenge"- Project Manager - Digital Globe - <https://datacollaboratives.org/cases/digitalglobe-8-band-research-challenge.html>

Project member

- 2021 – 2023 HYPERCUBE 4.0 Moving Wood Measurement Towards a New Dimension" PN-III-P4-ID-PCE-2020-0401 Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI)
- 2020 – 2022 BIOPREDICT Improving the accuracy and precision of biomass estimations for Fagus sylvatica L., from tree level to large area, using terrestrial laser scanning technology PN-III-P1-1.1-TE-2019-1744 Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI)
- 2022 - A comparative study to estimate the accuracy of some wood measurement systems: TimSpect-Cind, Microtec and scanning by GeoSLAM technology
- 2022 - Research services for the development of the independent study and the National Forest Strategy 2020-2030, obligation established by the National Recovery and Resilience Program
- 2022 - Research services regarding the assessment of the contribution of different phases of forest development within a mosaic forest landscape, for the conservation of biodiversity
- 2021 – 2023 Innovative training approach in the technology assisted environment for water management – PARADOX
- 2021 – 2023 European Alliance on Interdisciplinary Learning and Business Innovation for Urban Forests (UFOREST)
- 2020 – 2022 - Alliance on Interdisciplinary Learning and Entrepreneurial skills in Green for Health and Social Inclusion - GREEN4C
- 2018 – 2020 Development of a European Study Programme: International Master's Degree for the Environmental Security Sector (ENSEC)
- 2018 – 2021 European Research and Enterprise Alliance on Marketing and Economics of

Ecosystems and Biodiversity - ECOSTAR

- 2015 – 2016 GIS expert in "COREHABS - Ecological corridors for species and habitats in Romania" EEA Grants
- 2014 - 2015 MSc Degree on Management of Sustainable and Ecological Tourism (MEST) Funds covered by Erasmus Plus
- 2014 Consultant for conducting an analytical study on Forest Ecosystem Services (FES) in Moldova Funds covered by ENPI FLEG
- 2013 - 2016 European Islands Continue education on Resources Efficiency Virtual Gateway (VIREG) Funds covered by ERASMUS Plus
- 2013 Managing and conserving forests for multiple values Funds covered by UE
- 2012 - 2014 GIS expert in "Services for the development of scientific studies, inventories, maps (including GIS mapping) in ROSCI0395 sites" - Funds covered by Sectorial Operational Programme – Environment
- 2012 – 2014 Research member in Fundamentals and solutions for design and monitoring the torrent control works from predominantly forested watersheds – National Forest Administration
- 2012 – 2014 Forestry expert in Sustainable networks for the energetic use of lignocellulosic biomass in South East Europe (FOROPA) – Funds covered by The South East Europe Transnational Cooperation Programme
- 2012 - 2014 MSc Modules Programme in Environmental Security and Management-SEMP Funds covered by Erasmus Plus and Green Technology European Virtual Gateway-VITEG Funds covered by ERASMUS Plus
- 2012 Estimating the available beech, Norway spruce and silver fir wood to be harvested in east Romania Funds covered by Prinzhorn Holding GmbH
- 2012 GIS expert in "Developing a GIS database required for management plans for 10 Natura 2000 sites" - Funds covered by Sectorial Operational Programme - Environment
- 2010 - 2011 GIS expert in "Creating GIS spatial database for Vrancea, Covasna and Harghita" - Funds covered by LIFE 08 NAT/RO/500
- 2010 - 2013 GIS expert in "Services for the development of scientific studies, inventories, maps (including GIS mapping) in Defileul Jiului National Park" - Funds covered by Sectorial Operational Programme – Environment
- 2012 – GIS Hydrology expert "Improving the Financial Sustainability of the Carpathian System of Protected Areas" – Watershed protection in AP (soil stabilization, erosion control, water level fluctuation) and Disaster Risk Reduction value in AP - UNDP
- 2008 - 2012 GIS expert in "Development of new products derived from satellite data adapted to users in the management of hydro-meteorological risk situations. (RISCASAT)" - Funds covered by Executive Unit for Financing Higher Education, Research, Development and Innovation
- 2008 – 2011 Research member " New research on the behavior of the river network torrent control works in the upper basin of Tarlung (ID740)" - CNCSIS

Publications

Web of Science Indexed Records (over 40) and in total over 70 in international databases <https://scholar.google.ro/citations?user=hBkhiNMAAAAJ&hl=ro> , 9 books and chapters in Remote Sensing, GIS and Watershed Management

Skills

Highly experienced forestry engineer and academic expert specializing in geomatics, forest hydrology, and environmental science. He possesses advanced proficiency in **GIS** (ArcGIS, QGIS, SagaGIS, spatial databases) and **Remote Sensing** technologies (ENVI, GrassGIS, Orfeo Toolbox, Google Earth Engine). His technical expertise extends to advanced **scanning** technologies—including 3D point clouds, Terrestrial Laser Scanning (TLS), UAVs, and GeoSLAM—used for precise biomass estimation and forest modeling. Furthermore, he has an extensive background in **training data analysis** and machine learning applications for Earth Observation, regularly utilizing complex datasets (e.g., Landsat time series, historical Corona spy-satellite imagery) and advanced classification methods (like the Random Forest or Deep Learning Classifier) to lead international research and drive environmental policy.