



PROFESSIONAL EXPERIENCE

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2015-present
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Full Professor, from 2019 holds the position of director of the Department of Forest Engineering, Forest Management Planning and Terrestrial Measurements, Faculty of Silviculture and Forest Engineering, Transilvania University of Brasov

Department of Forest Engineering, Forest Management Planning and Terrestrial Measurements, Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Şirul Beethoven No. 1, 500123, Braşov, Romania, <u>https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html</u>

Management of teaching, research & accreditation activities for the Timber Harvesting Technology, Timber Harvesting Systems, Cable Yarding, Time & Production Studies in Forest Operations and Computer Aided Design in Forest Engineering disciplines. Main duties & responsibilities:

- development and validation of courses outlines & syllabuses;
- development and implementation of teaching & evaluation activities;
- development of laboratory & lecture resources;
- development of quality insurance documentation needed for reaccreditation;
- gaining external financial support for laboratory equipment & updating;
- development of state-of-art tools for teaching (e.g. video tutorials, web platforms etc.);
- managing a research team;
- coordination of undergraduate projects & master dissertations;
- participation as a president or member in the graduation committees;
- participation as a reviewer of undergraduate and master dissertations;
- managing & carrying on research activities in the field of Forest Engineering, including participation into research projects calls at national and international level;
- coordination of PhD students;
- participation as a reviewer of PhD dissertations and theses.

Type of activity: Higher Education & Research

2012-2019 Vice Dean

Department of Forest Engineering, Forest Management Planning and Terrestrial Measurements, Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Şirul Beethoven No. 1, 500123, Braşov, Romania, <u>https://silvic.unitbv.ro/despre.html</u>

Main duties & responsibilities:

- Management and coordination of learning system by: supervision of course outlining activities, syllabus development, documentation development at faculty level, aligning the learning programs to national and international requirements and standards, organization of international summer schools and stakeholder workshops;
- Management and coordination of quality insurance system: supervision of processes related to the internal quality of the learning system, mediation of conflicts, solving overlapping contents of courses, supervising the production of internal quality documentation;
- Management and coordination of student & graduate affairs: supervision of processes related to student admittance in the faculty, student accommodation, student scholarships, student summer camps, student facilities, student organizations, ALUMNI, internship & practical placement of students, assistance in finding jobs, benchmarking of the graduates' insertion on the job market;
- Management and coordination of public relations: person in charge with media relation, stakeholder community, agreement development, inter-institutional agreement development, attraction of funding and sponsorship for events and for equipment for teaching & research laboratories.

Type of activity: Higher Education & Research

2008-2022 Associate Engineer, part time job

S.C. Niţoi Amenajări S.R.L., http://www.amenajari-silvice.ro/ro/

- Management and coordination of Remote Sensing & G.I.S. Department:
 - Development of Forest Management Plans;
 - Development of Forest Management Databases & G.I.S. systems for forest management;
 - Development of Management Systems by Computer Programming.
- Type of activity: Forest Engineering & Forest Management Planning

2014-present

Revista Pădurilor, http://revistapadurilor.com/contact/

- Management and supervision of editorial processes related to the journal: editorial meetings, development of tools and processes for the journal, recruiting & assigning reviewers, recruiting editors, ensuring the quality of publication, increasing the visibility of the journal.
 Type of activity: Scientific Editorship & Publishing
- 2014-2015

Associate Professor

Editor in Chief

Department of Forest Engineering, Forest Management Planning and Terrestrial Measurements, Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Şirul Beethoven No. 1, 500123, Braşov, Romania, <u>https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html</u>

- Management of teaching, research & accreditation activities for the Timber Harvesting Technology, Timber Harvesting Systems, Cable Yarding, Time & Production Studies in Forest Operations and Computer Aided Design in Forest Engineering disciplines. Main duties & responsibilities:
 - development and validation of courses outlines & syllabuses;
 - development and implementation of teaching & evaluation activities;
 - development of laboratory & lecture resources;
 - development of quality insurance documentation needed for reaccreditation;
 - gaining external financial support for laboratory equipment & updating;
 - coordination of undergraduate projects & master dissertations;
 - participation as a president or member in the graduation committees;
 - participation as a reviewer of undergraduate and master dissertations;
 - managing & carrying on research activities in the field of Forest Engineering, including participation into research projects calls at national and international level;
 - participation as a reviewer of PhD dissertations and theses.

Type of activity: Higher Education & Research

2011-2014

Lecturer

Department of Forest Engineering, Forest Management Planning and Terrestrial Measurements, Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Şirul Beethoven No. 1, 500123, Braşov, Romania, <u>https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-</u>p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html



- Management of teaching, research & accreditation activities for the Timber Harvesting Technology, Timber Harvesting Systems, Cable Yarding, Time & Production Studies in Forest Operations and Computer Aided Design in Forest Engineering disciplines. Main duties & responsibilities:
 - development and validation of courses outlines & syllabuses;
 - development and implementation of teaching & evaluation activities;
 - development of laboratory & lecture resources;
 - development of quality insurance documentation needed for reaccreditation;
 - coordination of undergraduate projects & master dissertations;
 - participation as a president or member in the graduation committees;
 - participation as a reviewer of undergraduate and master dissertations;
 - managing & carrying on research activities in the field of Forest Engineering, including
 - participation into research projects calls at national and international level.
- Type of activity: Higher Education & Research

2009-2011

Assistant Professor

Department of Forest Engineering, Forest Management Planning and Terrestrial Measurements (former Department of Timber Harvesting & Transportation), Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Şirul Beethoven No. 1, 500123, Braşov, Romania, https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99im%C4%83sur%C4%83tori-terestre.html

- Management of teaching, research & accreditation activities for the Timber Harvesting Technology discipline. Main duties & responsibilities:
 - development and validation of courses outlines & syllabuses;
 - development and implementation of teaching & evaluation activities;
 - development of laboratory & lecture resources;
 - development of quality insurance documentation needed for reaccreditation;
 - coordination of undergraduate projects;
 - managing & carrying on research activities in the field of Forest Engineering, including participation into research projects calls at national and international level.

Type of activity: Higher Education & Research

EDUCATION AND TRAINING

2005-2009 PhD graduate, PhD diploma in Forestry

Level 8, according to EQF system

Issuing institution: Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Romania, <u>www.unitbv.ro</u>

Principal subjects covered by the study program:

- Management of Research Projects
- Statistics in Science
- Metrics in Science
- English in Science
- Ethics in Academics & Research
- Creativity & Innovation
- Timber Harvesting Systems and Research Methods in Forest Engineering

2004-2005 Master in Forestry, equivalent diploma

Level 7, according to EQF system

Issuing institution: Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Romania, <u>www.unitbv.ro</u>

Principal subjects covered by the study program:

- Timber Harvesting Systems
- Forest Accessibility
- Automation in Forestry
- Computer Programming in Forest Engineering
- Project Management
- Advanced Economics & Management in Forest Operations

2001-2004 Bachelor in Forestry, Forest Engineer diploma

Level 6, according to EQF system

Issuing institution: Faculty of Silviculture and Forest Engineering, Transilvania University of Braşov, Romania, <u>www.unitbv.ro</u>

• Principal subjects covered by the study program:

- Timber Harvesting Technology
- Cable Yarding
- Forest Roads
- Mechanization
- Ergonomics and Safety
- Forest Management Planning
- Silviculture
- Economics

PERSONAL SKILLS

Mother tongue(s)	Romanian				
Other languages(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Listening	Reading
English	C2	C2	C2	C2	C1
Franceză	A2	B1	A2	A2	A2
Tanocza		a to: https://auropage			

Communication skills

I believe that I hold good communication skills gained through my experience as a manager, teacher and researcher in the following key communication areas: active listening, adaptation of the speech to the type of audience, friendliness & confidence, feedforward & feedback, volume & clarity of speech, empathy & respect for colleagues and students, nonverbal language, responsiveness, constructive criticism, interpersonal communication, public speaking, verbal & non-verbal communication and written communication. These were gained by working with many students at different levels (bachelor, master & PhD), colleagues under my supervision (more than 30), colleagues from the same hierarchy and my direct and indirect supervisors.



Organizational and managerial My organisational & managerial skills were developed in strong relation to my jobs: skills - Ability to teach and mentor was gained from teaching, evaluating and mentoring/supervising 10 generations of students at bachelor and master level as well as three generations at PhD level. Also, I had the opportunity to organize trainings for colleagues working in production, with many of them older than me, a fact that helped me to shape and adapt my teaching skills to different age groups; · Flexibility, which was gained due to specificity of my jobs that required reallocation of duties and tasks in many circumstances, as well as working in my free time; Ability to take risks and overcome and mitigate their effects, which I learned in many situations that required rapid decisions and balancing of outcomes; Team building, which was gained during my work in the faculty administration and as a supervisor of my research team; • Time management, which I've learned informally from my research interests and studies and formally from my job that required effective time allocation procedures; · Decision-making, which was gained during my managerial activities related, in particular, to the administration of the faculty and of the research projects in which I've worked; Project planning, task delegation, team communication and team leadership which were gained specifically in management activities and research and development projects in which I've worked or which I've coordinated. Skills developed in the Skills in Forest Operations Safety that were gained following my teaching and research in the field, previous/current jobs including my participation as local coordinator or member in research projects related to such issues (Annex 1); Skills in Harvest Planning & Environmental Standards that were gained following my teaching on such issues, my PhD thesis and my research in this area of Forest Engineering (Annex 1); · Skills in Forest Roads Design, Planning & Construction. Gained during my education, field applications with my students and during my technical assistance provided to different stakeholders by research and technical assistance projects (Annex 1); Skills in integrating sensor measurements, terrestrial measurements, GPS, GIS & Remote Sensing. Gained during my education, field applications with my students and during my research work (Annex 1):

- Skills in developing and managing externally-funded research projects. Gained during my research activity, and my experience related to working in projects funded by the European Union and national stakeholders, institutions, agencies and organizations (Annex 1);
- Skills in networking and network development activities at local, national and international level. Gained during my managerial and research activity, as well as during my collaborations with researchers from other countries;
- Skills in Forest Operations Practice. Gained during field applications with my students, during field experiments related to my research and during my effective hobby-work in forest operations during the high school and ever since then;
- Skills in Cable Yarding Design & Planning. Gained during field applications with my students, teaching, software development and technical assistance provided to logging companies from Romania;
- Skills in Forest Management Planning that were gained during my work as an engineer.

SELF-ASSESSMENT							
Information processing	Information processing Communication		Content Safety				
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user			

Based on self-assessment on the grid available at: https://europass.cedefop.europa.eu/resources/digital-competences

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Digital skills



- good command of office suite (word processor, spread sheet, presentation software, several providers). Acquired during my education, teaching and researching activities;
- good command of GIS software (several providers) for several purposes such as harvesting planning, forest management planning, environmental assessment, forest road network planning and development, landscape statistics. Acquired during my engineering, education, teaching and researching activities;
- good command of CAD software (several providers) for several purposes such as harvesting planning, forest management planning, forest road design. Acquired during my engineering, education, teaching and researching activities;
- good command of VBA programming language for several purposes that need automation under MS Excel. Acquired during my engineering, education, teaching and researching activities;
- good command of statistical software (several providers) and a strong background in statistical analysis for several purposes that need statistical analysis. Acquired during my education, teaching and researching activities;
- good command of image processing software and image composition software (several providers and techniques). Acquired during my education, teaching and researching activities;
- good command of video processing software (several providers and techniques). Acquired during my education, teaching and researching activities;
- good command of several software packages related to the work with data acquisition equipment and sensors such as acceleration & vibration, sound pressure, structure from motion, heart rate samplers. Acquired during my teaching and researching activities;
- good command of G.P.S. technology, equipment and software (several providers & software packages). Acquired during my engineering, teaching and researching activities;
- In general, I consider myself to be a person that rapidly adapts and learns any kind of technology and the associated software packages.
- Other skills I consider myself to be a person that places a great deal and attention to details, who likes and feels well in collaborating, who needs to communicate and shows patience for things and persons, and who likes, in particular, researching and teaching tasks. I would like to think about myself as a person that focuses on problems to be solved, sets goals to attain, organizes the things to achieve those goals and prioritizes the problems when pursuing the goals. These, along with my ambition and creativity willy helped me in building my career so far and I am strongly confident that they will further help me in developing it. I am open and committed to learn new things every day.
- Driving license B category (i.e. regular cars) in the Romanian system.



ADDITIONAL INFORMATION

Publications Presentations Projects Conferences Seminars Recognition Affiliations References Etc.

- Publication list: see Annex 1.
- Oral presentations/Seminars/Moderator at scientific conferences/Organizer of scientific conferences/Invited lectures/Organizer of workshops/Organizer of summer schools:
 - Oral presentations at conferences: Forest and Sustainable Development, FORMEC;
 - Moderator of Ergonomics technical session at FORMEC 2016;
 - Invited presentation at FORMEC 2015 and FORMEC 2016;
 - Co-organizer of a technical session, IUFRO Congress, 2019, Curitiba, Brazil;
 - Co-organizer of a technical session, 4th International Congress on Planted Forests, 2018, Beijing, China;
 - Plenary speaker at 2^{do} Congreso nacional de Agrotechnologia, November, 2014, Paraiso, Tabasco, Mexico;
 - Organization of several seminars at Escuela Superior Politechnica de Chimborazo, Riobamba, Ecuador (2017, 2018, 2019);
 - Organization of research workshops and seminars at the Faculty of Silviculture and Forest Engineering, with invited speakers from Austria, Australia, Germany, Finland, Italy and Croatia (2014-2019);
 - Organization of summer schools with international attendance (Best, Sufonama);
 - Invited speaker at the XIV World Forestry Congress, 7-11 September 2015, Durban, South Africa;
 - Participation at the IUFRO Congress Salt Lake City, SUA, October 2014;
 - Plenary presentations, invited presentations and oral presentations at FORMEC 2012 (Croatia), 2015 (Austria), 2016 (Poland), 2017 (Romania), 2018 (Spain), 2023 (Italy), 2024 (Poland);
 - Invited presentation at Universitatea Agrară de Stat din Republica Moldova, February 2017;
 - Invited presentation, oral presentation and two poster presentations at 4th International Congress on Planted Forests - a Solution for Green Development, Beijing, China, October 2018;
 - Invited presentation on forest management at EUROPA KARPAT, Krakow, Poland, June 2019;
 - Invited presentation at the jubilee anniversary of ESPOCH 50 years;
 - Research & education projects: see Annex 1
 - Organization of conferences and symposia:
 - Organizer of the FORMEC 2017 (half century of FORMEC): "Innovating the competitive edge: from research to impact in the forest value chain", Braşov, Romania;
 - Coorganizer of the symposium Forest and Sustainable Development, Braşov, Romania (2012-present).
 - Membership in:
 - Expert in focus-group EIP-AGRI on forest biomass mobilization Sustainable mobilization of forest biomass;
 - IUFRO, Division 3, Forest Roads Engineering and Management: https://www.iufro.org/science/divisions/division-3/30000/30100/30102/
 - Citations:
 - Clarivate Analytics (Web of Science): > 1160
 - Google Scholar: > 2300
 - Scopus: > 1400
 - Research Gate: > 1700



Publications • Hirsch Indexes: Clarivate Analytics (Web of Science): 18, Scopus: 20, Google Scholar: 24.

Presentations • Reviewer:

Projects

Seminars

Affiliations

Etc

References

Conferences

Recognition

- Reviewer for the following (short list) journals / conferences / symposia / publishing houses): Agroforestry Systems, Annals of Forest Research, Annals of Silvicultural Research, Applied Sciences, Bioresources, Bucovina Forestieră, Bulletin of the Transilvania University of Brasov, Canadian Journal of Forest Research, Catena, CERNE, Croatian Journal of Forest Engineering, Current Forestry Reports, Diversity-Basel, Drewno, Editura Universitătii Transilvania din Brașov, Egyptian Journal of Remote Sensing and Space Science, Energies, Environmental Engineering and Management Journal, Environmental Impact Assessment Review, European Journal of Forest Engineering, European Journal of Forest Research, Forests, Forestist, Frontiers in Environmental Science, Forest Ecology and Management, Forestry Ideas, Fuel, FORMEC, FETEC, Forest Products Journal, Forest and Sustainable Development, Helivon, IET Signal Processing, International Journal of Environmental Research and Public Health, Journal of Applied Remote Sensing, Journal of Cleaner Production, Journal of Forestry Research, International Journal of Forest Engineering, International Journal of Occupational Medicine and Environmental Health, iForest, Land, Materials, Notulae Botanicae Horti Agrobotanici Cluj-Napoca, Plants, PlosONE, Processes, Remote Sensing, Revista Bosque, Safety, Safety Science, Sensors, Silva Fennica, Small Scale Forestry, South-East European Forestry, Southern Forests, Sustainability, Revista Pădurilor, Technological Forecasting and Societal Change, The Egyptian Journal of Remote Sensing and Space Science.
- Editorial work:
 - Editor in Chief: Revista Pădurilor (2014-2023, indexed by CABI, top 3 among the oldest forestry journals in the world);
 - Member in editorial team: Annals of Forest Research (2014-present), Croatian Journal of Forest Engineering (2018-present), Bucovina Forestieră (2015-present), Bulletin of the Transilvania University of Braşov, Series II (2014-present); European Journal of Forest Engineering (2016-present), Forests (2019-present), Helyion (2022-2023);
 - Forest Engineering (2016-present), Forests (2019-present), Helyion (2022-2023);
 Member in the scientific committee, 2nd International Symposium of Forest Engineering and Technologies (FETEC 2019): "Human and Nature Oriented Forest Engineering", September 2019, Tirana, Albania;
 - Member in the scientific committee, FORMEC 2017, 2024, 2025
- Cooperation at local, national and international level:
 - Local: local forest enterprises, concretized in research and development projects. Cooperation with colleagues from the university which resulted in joint publications (Annex 1);
 - National: RNP Romsilva, ASFOR, INCDS, concretized in research and development projects and publications. Cooperation with colleagues from other universities for joint publication (Annex 1);
 - International: international entities, universities, research institutes, financing bodies, concretized in research projects mainly financed by European calls and the development of innovative products and services (Annex 1). Strong cooperation and networking with colleagues from universities and research institutes from: South Africa, Australia, Austria, Brazil, Bulgaria, Canada, China, Croatia, Czech Republic, Ecuador, Switzerland, France, Finland, Germany, Greece, Iran, Italy, Japan, Kazakhstan, Lithuania, Mexico, Norway, Poland, Republic of Moldova, Serbia, Slovakia, Slovenia, US, Spain, Sweden, Thailand, Turkey, Ukraine.

Prizes:

- Certificate of recognition for outstanding academic and scientific contributions issued by ESPOCH, Riobamba, Ecuador, July, 2019.
- Forests 2021 Outstanding Reviewer Award prize for the reviewing work at the Forests Journal (Web of Science).



ANNEXES

ANNEX 1: LIST OF RELEVANT PUBLICATIONS AND RESEARCH PROJECTS

Publications:

A.) Books (selection):

- 1. Erler J., Spinelli R., Borz S.A., Mederski P., 2023. Technodiversity. Editura Universității Transilvania din Brașov.
- 2. Borz S.A., Proto A.R., Keefe R., Niță M.D., 2022. Electronics, close range-sensors and artificial intelligence in forestry. MDPI, Basel.
- 3. Borz S.A., 2014. Evaluarea eficienței echipamentelor și sistemelor tehnice în operații forestiere. Editura Lux Libris, Brașov.
- 4. Borz S.A., Ignea G., 2013. Aplicații V.B.A. și M.S. Excel în ingineria forestieră. Editura Lux Libris, Brașov.
- 5. Popa B., Borz S.A., 2013. Mecanisme de plăți pentru serviciile ecosistemelor din România. Editura Lux Libris, Brașov.
- 6. Popa B., Borz S.A., 2013. Ghid metodologic pentru înființarea și funcționarea comitetelor regionale de mediu. Editura Lux Libris, Brașov.
- 7. Dumitrașcu A.E., Ciobanu D.V., Borz S.A., David E.C., 2013. Ingineria și managementul riscurilor. Editura Lux Libris, Brașov.
- 8. Oprea I., Borz S.A., 2007. Organizarea șantierului de exploatare a lemnului. Editura Universității Transilvania din Brașov.

B.) Papers:

B.1.) Indexed by Web of Science/Clarivate Analytics

- 1. Marcu M.V., Borz S.A. 2024. Effect of Trail Condition, Slope, and Direction of Extraction on Forwarding Performance: Insights from a Controlled Comparative Study. Forests 15, 1790. https://doi.org/10.3390/f15101790
- Borz S.A., Proto A.R. 2024. Predicting Operational Events in Mechanized Weed Control Operations by Offline Multi-Modal Data and Machine Learning Provides Highly Accurate Classification in Time Domain. *Forests* 15, 2019. https://doi.org/10.3390/f15112019
- Kaakkurivaara T., Borz S.A., Kaakkurivaara N. 2024. Immersive virtual reality in forestry work implementation for chainsaw training. International Journal of Forest Engineering, 1–7. https://doi.org/10.1080/14942119.2024.2414694
- 4. Beygi Heidarlou H., Gholamzadeh Bazarbash M., Borz S.A. 2024. Unveiling the Role of Climate and Environmental Dynamics in Shaping Forest Fire Patterns in Northern Zagros, Iran. Land 13, 1453. https://doi.org/10.3390/land13091453
- Forkuo G.O., Marcu M.V., Iordache E., Borz S.A. 2024. Timber Extraction by Farm Tractors in Low-Removal-Intensity Continuous Cover Forestry: A Simulation of Operational Performance and Fuel Consumption. *Forests* 15, 1422. https://doi.org/10.3390/f15081422
- Erler J., Đuka A., Papa I., Bade C., Borz S.A., Lindroos O., Lundbäck M., Mederski P.S., Bembenek M., Mionetto N., Magagnotti, N., Simonetti S., Stampfer K., Pavelić N., Spinelli R. 2024. Technodiversity – Glossary of Forest Operations Terms. Croatian Journal of Forest Engineering 45(2024)2. https://doi.org/10.5552/crojfe.2024.2364
- 7. Presecan M.F., Forkuo G.O., Borz S.A. 2024. Soil Compaction Induced by Three Timber Extraction Options: A Controlled Experiment on Penetration Resistance on Silty-Loamy Soils. *Applied Sciences* 14, 5117. https://doi.org/10.3390/app14125117
- 8. Borz S.A., Mederski P., Bembenek M. 2024. A Simulation Study of Noise Exposure in Sledge-Based Cable Yarding Operations. *Forests* 15, 360. https://doi.org/10.3390/f15020360
- Borz S.A., Morocho Toaza J.M., Proto A.R. 2024. Accuracy of two LiDAR-based augmented reality apps in breast height diameter measurement. Ecological Informatics 81, 102550. https://doi.org/10.1016/j.ecoinf.2024.102550
- Beygi Heidarlou H., Oprea-Sorescu O., Marcu M.V., Borz S.A. 2024. Mapping Small-Scale Willow Crops and Their Health Status Using Sentinel-2. Images in Complex Agricultural Areas. Remote Sensing 16, 595. https://doi.org/10.3390/rs16030595
- Beygi Heidarlou H., Mirshekarlou A.K., Lopez-Carr D, Borz S.A. 2024. Conservation policy and forest transition in Zagros forests: Statistical analysis of human welfare, biophysical, and climate drivers. Forest Policy and Economics 161, 103177. https://doi.org/10.1016/j.forpol.2024.103177
- Kärhä K., Seuri M., Donagh P.M., Acuna M., Kanzian C., Petković V., Gonçalves Robert R.C., Suppi Costa L.H., da Cruz R.C., Krumov T., Bradley A., Röser D., Pinto C., Dian W., Pandur Z., Dvořák J., Jørgensen M.T., Muiste P., Irdla M., Ginet C., Purfürst T., Dietz H.-U., Spinelli R., Suzuki Y, Shirasawa H., Lazdiņš A., Visser R., Harvey C., Skjølaas D., Moskalik T., Trzciński G., **Borz S.A.**, Muşat E.C., Triplat M., Oberholzer F., Talbot B., Tolosana E., von Hofsten H., Akay A.O., Bakay B., Conrad IV J.L., Olivera A. 2024. Overview of Global Long-Distance Road Transportation of Industrial Roundwood. *Croatian Journal of Forest Engineering* 45(1), 217-236. https://doi.org/10.5552/crojfe.2024.2286
- Palander T., Tokola T., Borz S.A., Rauch P. 2024. Forest Supply Chains During Digitalization: Current Implementations and Prospects in Near Future. Current Forestry Reports 10, 223-238. https://doi.org/10.1007/s40725-024-00218-4
- 14. Beygi Heidarlou H., Shafiei A.B., Tayyebi A., Borz S.A. 2023. Evaluating the effect of ongoing conservation policies and forest cover changes in Iranian Zagros forests based on a Land Transformation Model: transition to forest or deforestation? *Annals of Forest Research* 66(1), 79-97. https://doi.org/10.15287/afr.2023.2628
- Forkuo G.O., Borz S.A. 2023. Accuracy and inter-cloud precision of low-cost mobile LiDAR technology in estimating soil disturbance in forest operations. Frontiers in Forests and Global Change 6, 1224575. doi: 10.3389/ffgc.2023.1224575
- 16. Mousavi F., Abdi E., Borz S.A. 2023. Forest Road Subgrade Improvement by Lime and Sodium Nanoalginate Used as Stabilizers for Clay Soils. *Forests*, 14, 1332. https://doi.org/10.3390/f14071332
- Borz S.A., Secelean V.-N., Iacob L.-M., Kaakkurivaara N. 2023. Bucking at Landing by a Single-Grip Harvester: Fuel Consumption, Productivity, Cost and Recovery Rate. *Forests* 14, 465. https://doi.org/10.3390/f14030465
 Borz S.A., Craciun B.C., Marcu M.V., Iordache E., Proto A.R. 2023. Could timber winching operations be cleaner? An evaluation of two options in
- Borz S.A., Craciun B.C., Marcu M.V., Iordache E., Proto A.R. 2023. Could timber winching operations be cleaner? An evaluation of two options in terms of residual stand damage, soil disturbance and operational efficiency. *European Journal of Forest Research*. 142:475–491. https://doi.org/10.1007/s10342-023-01536-1
- Borz S.A., Maris A.C., Kaakkurivaara N. 2023. Performance of skidding operations in low-access and low-intensity timber removals: a simulation of productivity and fuel consumption in mature forests. Forests 14(2), 265. DOI: 10.3390/f14020265.
- Niţă M.D., Borz S.A. 2023. Accuracy of a smartphone-based freeware solution and two shape reconstruction algorithms in log volume measurements. Computers and Electronics in Agriculture 205, 107653. DOI: 10.1016/j.compag.2023.107653
- 21. Keybondori S., Abdi E., Deljouei A., Lazaro-Lobo A., Ervin G.N., Shakeri Z., Etemad V., Borz S.A. 2023. Effects of forest roadside on vegetation characteristics in the Hyrcanian temperate forest. *European Journal of Forest Research*. 142:455–473. https://doi.org/10.1007/s10342-023-01535-2
- Heidarlou H.B., Shafiei A.B., Nasiri V., Nita M.D., Borz S.A., Lopez-Carr D. 2023. Impact of Iran's Forest Nationalization Law on forest cover Changes over six decades: a case study of a Zagros sparse coppice oak forest. Sensors 23(2), 871. DOI: 10.3390/s23020871
- 23. Lyons K.C., Borz S.A., Harvey C., Ramantswana M., Sakai H., Visser R. 2023. Forest roads: regional perspectives from around the world. International Journal of Forest Engineering. DOI 10.1080/14942119.2022.2160916
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Research, development and innovation projects: more than 30 (the following is a selected list of international projects):

- FOROPA Sustainable Networks for the Energetic Use of Lignocellulosic Biomass in South-East Europe. Amount: 49062 EUR; Financing 1. entity: SEE Transnational Cooperation Programme și UE; Contract no.: SEE/D/0341/1.1/X; Implementation period: 2012-2014; No. of years of implementation: 2; Role: person in charge; Employer: Transilvania University of Brasov.
- Vocational Education Training Standards in Agriculture, Forestry & Amp; Environmental Safety at Heights VET-SAFETY. Amount: 27450 2. EUR; Financing entity: ERASMUS + / K2 - Cooperation for innovation and the exchange of good practices; Contract no.: 2014-1-UK01-KA202-1870; Implementation period: 2014-2017; No. of years of implementation: 3; Role: person in charge; Employer: Transilvania University of Brasov.
- FORWARDER 2020-Smart Forwarder for sustainable and efficient forest operation and management-H2020. Financing entity: Horizon 2020; 3 Contract no.: H2020 - RIA - BB - 2016 - 1 / 727883; Implementation period: 2016-2019; No. of years of implementation:3; Role: person in charge; Employer: Transilvania University of Brasov.
- 4. TECHNODIVERSITY - Harmonizing the European education in forest engineering by implementing an e-learning platform to support adaptation and evaluation of forest operations. Amount: 42706 EUR; Financing entity: ERASMUS +; Implementation period: 2022-2024; No. of years of implementation: 3; Role: person in charge; Employer: Transilvania University of Brasov.
- SINTETIC Single item identification for forest production, protection and management. Financing entity: Horizon Europe; Amount: 5. 546875 EUR; Contract no.: 101082051-2; Implementation period: 2023-2027; No. of years of implementation: 4; Role: person in charge; Employer: Transilvania University of Brasov.
- SMALL4GOOD Sustainable multifunctional management by small forest owners in support of bioeconomy, biodiversity and 6. climate. Financing entity: Horizon Europe; Amount: 731562 EUR; Proposal id.: 101135517; Implementation period: 2024-2027; No. of years



of implementation: 4; Role: person in charge; Employer: Transilvania University of Brasov.

15.05.2025