

## PERSONAL INFORMATION

# Borz Stelian Alexandru



Braşov, Romania

stelian.borz@unitbv.ro

Skype: borzalexandru

Gender Male | Birthdate

| Citizenship Romanian

#### PROFESSIONAL EXPERIENCE

#### 2015-present

# **Full Professor**

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, <a href="https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html">https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html</a>

- 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.

# 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, <a href="https://silvic.unitbv.ro/despre.html">https://silvic.unitbv.ro/despre.html</a>

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.

Higher Education & Research

2008-present

Associate Engineer, part time job



#### Curriculum Vitae

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.

Forest Engineering & Forest Management Planning

#### 2014-present

#### Editor in chief

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.

Scientific Editorship & Publishing

## 2014-2015

# Associate Professor

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, <a href="https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html">https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html</a>

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  - 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.

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, <a href="https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html">https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html</a>

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  - development and implementation of teaching & evaluation activities;
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  - 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.

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, <a href="https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html">https://silvic.unitbv.ro/despre/exploat%C4%83ri-forestiere,-amenajarea-p%C4%83durilor-%C8%99i-m%C4%83sur%C4%83tori-terestre.html</a>



- 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.

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, www.unitbv.ro

- 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, <a href="https://www.unitbv.ro">www.unitbv.ro</a>

- 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)

English French

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Listening	Reading
C2	C2	C2	C2	C1
A2	B1	A2	A2	A2

Self-assessment according to: https://europass.cedefop.europa.eu/resources/european-language-levels-cefr



#### Curriculum Vitae

#### 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.

# Organisational and managerial skills

My organisational & managerial skills were developed in strong relation to my jobs:

- 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 previous/current jobs

- Skills in Forest Operations Safety that were gained following my teaching and research in the field, 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.

#### Digital skills

SELF-ASSESSMENT						
Information processing	Communication	Content creation	Safety	Problem solving		
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



- 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.

- 1.) Presentations to scientific conferences and symposia: more than 10, mainly to Forest and Sustainable Development international symposium and FORMEC;
- 2.) Moderator of Ergonomics technical session at FORMEC 2016;
- 3.) Invited presentation, FORMEC 2015;
- 4.) Co-organizer of a technical session, IUFRO Congress, 2019, Curitiba, Brazil;
- Co-organizer of a technical session, 4<sup>th</sup> International Congress on Planted Forests, 2018, Beijing, China;
- Plenary speaker at 2<sup>do</sup> Congreso nacional de Agrotechnologia, November, 2014, Paraiso, Tabasco, Mexico;
- Organization of several seminars at Escuela Superior Politechnica de Chimborazo, Riobamba, Ecuador (2017, 2018, 2019);
- 8.) Organization of research workshops and seminars at the Faculty of Silviculture and Forest Engineering, with invited speakers from Austria, Australia, Italy and Croatia (2014-2019);
- 9.) Organization of summer schools with international attendance (Best, Sufonama);
- 10.) International projects: 3. Romanian coordinator for all of them (Annex 1).
- 11.) National projects: more than 20. Coordinator for 10 of them (Annex 1).
- 12.) Organizer of the jubilee FORMEC 2017 international symposium (half century of FORMEC): "Innovating the competitive edge: from research to impact in the forest value chain", Braşov, Romania:
- 13.) Co-Organizer of the Forest and Sustainable Development international symposium (last four events), Braşov, Romania;
- Expert member in the EIP-AGRI focus group on forest biomass Sustainable mobilisation of forest biomass;
- 15.) Evaluation member of the ARACIS the Romanian Agency for Quality Insurance in Higher Education:
- 16.) Member of the Doctoral School Council of the Transilvania University of Braşov, representing the Forestry field of research;
- 17.) PhD supervisor affiliated to the Doctoral School of the Transilvania University of Braşov field of research Forestry;
- President and/or member of the admittance committee of the Faculty of Silviculture and Forest Engineering (2012-2019);
- 19.) President and/or member of graduation committees for Bachelor and Master study programs of the Faculty of Silviculture and Forest Engineering (2012-present);
- 20.) Member in the graduation committees for PhD theses (2014-present);
- 21.) Citations: Clarivate Analytics (former Web of Science): 229, Google Scholar: 589, Research Gate: 394.
- 22.) Hirsch Indexes: Clarivate Analytics (former Web of Science): 9, Scopus: 9, Google Scholar: 14;
- 23.) Review work: more than 75 reviews (2012-present). Reviewer for the following (selected) list of journals/conferences/symposia: Agroforestry Systems (indexed by Clarivate Analytics, former Web of Science), Annals of Forest Research (indexed by Clarivate Analytics, former Web of Science), Annals of Silvicultural Research, Bioresources (indexed by Clarivate Analytics, former Web of Science), Bucovina Forestieră (indexed by SCOPUS), Bulletin of the Transilvania University of Braşov (indexed by SCOPUS), Croatian Journal of Forest Engineering (indexed by Clarivate Analytics, former Web of Science), Energies (indexed by Clarivate Analytics, former Web of Science), Environmental Engineering and Management Journal (indexed by Clarivate Analytics, former Web of Science), European Journal of Forest Engineering, Forests (indexed by Clarivate Analytics, former Web of Science), Forests (indexed by Clarivate Analytics, former Web of Science), Forest Ecology and Management (indexed by Clarivate Analytics, former Web of Science), Forestry Ideas (indexed by SCOPUS), Formec Symposium, Forest Products Journal (indexed by Clarivate Analytics, former Web of Science), Fuel (indexed by Clarivate Analytics, former Web of Science), European Journal of Forest Engineering, Forests (indexed by Clarivate Analytics, former Web of Science), International Biennial Symposium Forest and Sustainable Development, iForest (indexed by Clarivate Analytics, former Web of Science), International Journal of Forest Engineering (indexed by Clarivate Analytics, former Web of Science), Journal of Cleaner Production (indexed by Clarivate Analytics, former Web of Science), Materials (indexed by Clarivate Analytics, former Web of Science), MDPI Proceedings (indexed by Clarivate Analytics, former Web of Science), Safety Science (indexed by Clarivate Analytics, former Web of Science), Silva Fennica (indexed by Clarivate Analytics, former Web of Science), Small Scale Forestry (indexed by Clarivate Analytics, former Web of Science), Sustainability (indexed by Clarivate Analytics, former Web of Science), Revista Pădurilor (indexed by CABI), Technological Forecasting and Social Change (indexed by Clarivate Analytics, former Web of Science), Transilvania University Press.



Publications
Presentations
Projects
Conferences
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References
Etc.

- Editor in Chief: Revista Pădurilor, 135 years old journal, (2014-present, indexed by CABI, top 3 oldest forestry journals in the world);
- 25.) Member in Editorial Boards/Scientific Committees (selected list):
  - Annals of Forest Research (2014-present, indexed by Clarivate Analytics/former Web of Science): <a href="http://www.afrjournal.org/index.php/afr/pages/view/editorialboard">http://www.afrjournal.org/index.php/afr/pages/view/editorialboard</a>
  - Croatian Journal of Forest Engineering (2018-present, indexed by Clarivate Analytics/former Web of Science): <a href="http://www.crojfe.com/about/editorial-office/">http://www.crojfe.com/about/editorial-office/</a>
  - Bucovina Forestieră (2015-present, indexed by CABI): <a href="http://www.bucovina-forestiera.ro/consiliu-editorial/">http://www.bucovina-forestiera.ro/consiliu-editorial/</a>
  - Bulletin of the Transilvania University of Braşov, Series II (2014-present, indexed by SCOPUS): <a href="http://webbut.unitbv.ro/Bulletin/Series%20II/Scientific Com2.html">http://webbut.unitbv.ro/Bulletin/Series%20II/Scientific Com2.html</a>
  - European Journal of Forest Engineering (2016-present): https://dergipark.org.tr/ejfe/board
  - 2<sup>nd</sup> International Symposium of Forest Engineering and Technologies (FETEC 2019): "Human and Nature Oriented Forest Engineering", Septembrie 2019, Tirana, Albania.
- 26.) More than 60 Bachelor theses supervised in the 2012 present period;
- 27.) More than 25 Master theses supervised in the 2012 present period;
- 28.) 7 PhD dissertations under supervision, 6 in Romanian and 1 in English;
- 29.) 4 PhD dissertations finished under my supervision: 2 in Romanian and 2 in English
- 30.) Cooperation:
  - Local cooperation: local stakeholders working in forestry and wood processing industry, concretized in research projects financed by some of them. Cooperation with colleagues from the university in inter-disciplinary research resulting in publication scientific articles and books (Annex 1);
  - National cooperation: national stakeholders working in forestry and wood processing industry (National Forest Administration RNP ROMSILVA, Association of Timber Harvesting and Pre-processing Companies ASFOR, National Institute of Research and Development in Forestry INCDS Marin Drăcea) resulting in research projects financed by some of them as well as in joint research actions, projects and publications. Collaboration in research with colleagues coming from other forestry faculties such as those located in Arad and Suceava (Annex 1);
  - International cooperation: international stakeholders, universities, research institutes and funding agencies & bodies resulting in financial support awarded mainly by European project calls and joint publications and product/service development (Annex 1). Strong cooperation and developed networks with universities, research institutes and colleagues from Australia, Austria, Belarus, Brazil, Bulgaria, Canada, China, Croatia, Czech Republic, Ecuador, France, Finland, Germany, Greece, Iran, Italy, Kazakhstan, Lithuania, Mexico, Norway, Poland, Republic of Moldova, Serbia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, Ukraine, U.S.A.

# 31.) Distinctions:

 Certificate of recognition for academic, scientific and research contributions, awarded by ESPOCH, Riobamba, Ecuador, July, 2019.

**ANNEXES** 

# ANNEX 1: LIST OF RELEVANT PUBLICATIONS & RESEARCH PROJECTS

# **Publications:**

- A.) Books (translation into English, selection):
- 1. Borz S.A., 2014. Evaluation of timber harvesting systems efficiency in forest operations, Lux Libris Publishing House, Braşov.
- 2. Borz S.A., Ignea G., 2013. M.S. Excel and V.B.A. applications in forest engineering, Lux Libris Publishing House, Brasov.
- 3. Dumitrașcu Ă.E., Ciobanu D.V., Borz S.A., David E.C., 2013. Risk management and engineering, Lux Libris Publishing House, Brașov.
- 4. Oprea I., Borz S.A., 2007. Planning of harvesting sites. Transilvania University Press, Braşov.



- B.) Scientific articles (selection, articles as first, main or corresponding author):
- Cheta M., Marcu M.V., Iordache E., Borz S.A., 2020. Testing the capability of low-cost tools and artificial intelligence techniques to automatically detect operations done by a small-sized manually driven bandsaw. Forests 11(7):739.
- 2. Marogel-Popa T., Marcu M.V., Borz S.A., 2020. Postural risk in manual planting operations of poplar: Two options compared. Sustainability 12(14): 5531.
- Talagai N., Marcu M.V., Zimbalatti G., Proto A.R., Borz S.A., 2020. Productivity in partly mechanized planting operations of willow short rotation coppice. Biomass & Bioenergy 138:105609.
- Rauch P., Borz S.A., 2020. Reengineering the Romanian timber supply chain from a process management perspective. Croatian Journal of Forest Engineering 41(1): 85-94.
- Borz S.A., Talagai N., Cheta M., Chiriloiu D., Gavilanez Montoya A.V., Castill Vizuete D.D., Marcu M.V., 2019. Physical strain, exposure to noise and 5. postural assessment in motor-manual felling of willow short rotation coppice: results of a preliminary study. Croatian Journal of Forest Engineering 40(2): 377-388. DOI: https://doi.org/10.5552/crojfe.2019.550.
- Tită G.C., Marcu M.V., Ignea G., Borz S.A., 2019. Near the forest road: small changes in air temperature and relative humidity in mixed temperate mountainous forests. Transportation Research Part D 74: 82-92. DOI: 10.1016/j.trd.2019.07.016.
- 7. Boja N., Boja F., Teusdea A., Vidrean D., Marcu M.V., Iordache E., Duţă C.I., Borz S.A., 2018. Resource allocation, pit quality, and early survival of seedlings following two motor-manual pit-drilling options. Forests 9(11): 665. DOI: 10.3390/f9110665.
- Cheta M., Marcu M.V., Borz S.A., 2018. Workload, exposure to noise and risk of musculoskeletal disorders: a case study of motor-manual tree felling and processing in poplar clear cuts. Forests 9(6): 300, DOI: 10.3390/f9060300.
- Fornea M., Birda M., Borz S.A., Popa B., Tomasic Z., 2018. Harvesting conditions, market particularities or just economic competition: a Romanian case study regarding the evolution of standing timber contracting rates. Sumarski List 142(9-10): 499-508. DOI: 10.31298/sl.142.9-10.5.
- Borz S.A., Talagai N., Cheta M., Montoya A.V.G., Vizuete D.D.C., 2018. Automating data collection in motor-manual time and motion studies implemented in a willow short rotation coppice. Bioresources 13(2): 3236-3249. DOI: 10.15376/biores.13.2.3236-3249.
- Borz S.A., Acuna M., Heinimann H.R., Palander T., Spinelli R., 2017. Innovating the competitive edge: from research to impact in the forest value chain: half-century of FORMEC. Annals of Forest Research 60(2): 199-201. DOI: 10.15287/afr.2017.914.
- Apăfăian A.I., Proto A.R., Borz S.A., 2017. Performance of a mid-sized harvester-forwarder system in integrated harvesting of sawmill, pulpwood and firewood. Annals of Forest Research 60(2): 227-241. DOI: 10.15287/afr.2017.909.
- Ignea G., Ghaffaryian M.R., Borz S.A., 2017. Impact of operational factors on fossil energy inputs in motor-manual tree felling and processing: results of two case studies. Annals of Forest Research 60(1): 161-172. DOI: 10.15287/afr.2016.705.
- Moskalik T., Borz S.A., Dvorak J., Ferencik M., Gluskov S., Muiste P., Lazdins A., Styranivsky O., 2017. Timber harvesting methods in Eastern European Countries: a review. Croatian Journal of Forest Engineering 38(2): 231-241.
- Dinca, L., Niţă, M.D., Hofgaard A., Alados C.L., Broll G., Borz S.A., Wertz, B., Monteiro A.T., 2017. Forest dynamics in the montane-alpine boundary: a comparative study using satellite imagery and climate data. Climate Research 73(1-2): 97-110. DOI: 10.3354/cr01452.
- Talagai N., Borz S.A., Ignea G., 2017. Performance of brush cutters in felling operations of willow short rotation coppice. Bioresources 12(2): 3560-3569. DOI: 10.15376/biores.12.2.3560-3569.
- Muşat E.C., Apăfăian A.I., Ignea G., Ciobanu V.D., Iordache E., Derczeni R.A., Spârchez G., Vasilescu M.M., Borz S.A., 2016. Time expenditure in computer aided time studies implemented for highly mechanized forest equipment. Annals of Forest Research 59(1): 129-143. DOI: 10.15287/afr.2015.473.
- 18. Rauch P., Wolfsmayr U.J., Borz S.A., Triplat M., Krajnc N., Klock M., Oberwimmer R., Ketikidis C., Vasiljevic A., Stauder M. et al., 2015. SWOT analysis and strategy development for forest fuel supply chains in South East Europe. Forest Policy and Economics 61: 87-94. DOI: 10.1016/j.forpol.2015.09.003.
- Borz S.A., Ignea G., Popa B., Spârchez G., Iordache E., 2015. Estimating time consumption and productivity of roundwood skidding in group shelterwood systems - a case study in a broadleaved mixed stand located in reduced accessibility conditions. Croatian Journal of Forest Engineering 36 (1): 137-146.
- Borz S.A., Ignea G., Popa B., 2014. Modelling and comparing timber winching performance in windthrow and uniform selective cuttings for two Romanian skidders. Journal of Forest Research 19(6): 473-482. DOI: 10.1007/s10310-014-0439-0.
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publications found here: https://www.researchgate.net/profile/Stelian\_Borz and here: be https://scholar.google.ro/citations?user=JilKJUsAAAAJ&hl=ro

# Research projects:

- A.) National (translated into English where necessary, selection):
  - Financed by the Transilvania University of Braşov by competition to integrate master students in research activities:
    - 1. Modelling the behaviour of trees during motor-manual felling to document work safety procedures Safe4Fell. Details: https://www.researchgate.net/project/Safe4Fell

Estimate on the financing amount: 6,700 €.

- Financed by different stakeholders at national level (links are available only on the internal web platform of the university):
  - 1. Grant No. 10767/5.08.2010: Research on the efficiency of modern timber harvesting systems in various natural conditions. Financing body: S.C. ESTERHAZY BARDEAU SILVÍCULTURA SRL., TIMIS.
  - 2. Grant No. 4580/11.04.2013: Revision of the maintenance and repairing normative for forest roads. Financing body: RNP Romsilva.
  - 3. Grant No. 4117/04.2014: Safe solutions for steep terrain harvesting near the Braşov City buildings. Financing body: RPLP KRONSTADT BRASOV.
  - 4. Grant No. 5302/25.04.2013: Research on improve solutions for forest roads rehabilitation and construction operations.



- Financing body: RNP ROMSILVA.
- 5. Grant No. 2248/01.03.2017: Updating the methodology for planning and preparation of harvesting sites and development of an operational costing software for forest operations. Financing body: RNP ROMSILVA.
- Grant No. 2315/02.03.2017. Elaborations of a strategy for forest road network development in the forests managed by RNP ROMSILVA.
- 7. Technical assistance on the inventory of forest roads network in the forests managed by RNP Romsilva and the development of a decision support system for their management. Financing body: RNP ROMSILVA.
- **8.** Grant No. 9168/20.07.2048: Tracking wood losses from standing trees to the final consumer including those related to technology used in tree felling and wood extraction. Funding body: SHI.
- Grant No. 4110/24.03.2010: Development of guidelines for timber harvesting in reduce accessibility conditions. Financing body: RNP ROMSILVA.
- Grant No. 4112/24.03.2010: Development of new technical standards for forest roads design and rehabilitation. Financing body: RNP ROMSILVA.
- Grant No. 4111/24.03.2010: Research on environmentally-sound solutions for construction of forest roads. Financing body: RNP ROMSILVA.
- 12. Grant No. 171/2006: Technical solutions for timber harvesting in low accessible forests in relation to silvicultural management. Funding body: Ministry of Economy and Commerce, National Wood Institute, Bucharest.

## Estimates on the total financing amount for projects 1 to 12: 320,000 €.

#### B.) International (selection):

- 1. FOROPA Sustainable Networks for the Energetic Use of Lignocellulosic Biomass in South-East Europe. Funding body: SEE Transnational Cooperation Programme and EU, grant number: SEE/D/0341/1.1/X. Period: 2012-2014. Total grant value: cca. 1.9 mil. €. Details: <a href="http://foropa.nlcsk.org/">http://foropa.nlcsk.org/</a>
- 2. FORWARDER 2020 Smart Forwarder for sustainable and efficient forest operation and management H2020. Funding body: Horizon 2020. Grant no. H2020 RIA BB 2016 1 / 727883. Period: 2016-2019. Total grant value: cca. 1.9 mil. €. Details: https://www.forwarder2020-project.eu/

Estimates on the total financing amount for projects 1 to 3: cca. 3.8 mil. €, out of which for the Transilvania University of Braşov 130,000 €.