



Universitatea
Transilvania
din Brașov

ȘCOALA DOCTORALĂ INTERDISCIPLINARĂ
Bulevardul Eroilor 29
500036 - Brașov
tel.: (+40) 268.413.000 | fax: (+40) 268.410.525
secretariat-sdi@unitbv.ro | www.unitbv.ro

Anexa 4/Appendix 4

**RAPORT DE EVALUARE AL COMISIEI DE ABILITARE /
ASSESSMENT REPORT OF THE HABILITATION COMMITTEE**

Din data de / of: 19.01.2026

Numele și prenumele candidatului/Candidate's surname and first name: Luminița – Maria BRENCI
Titlul tezei de abilitare/Title of habilitation thesis: SUSTAINABLE WOOD-BASED THERMAL
INSULATION STRUCTURES AND SURFACE QUALITY ASSESSMENT
Domeniul de studii universitare de doctorat/Doctoral field: FOREST ENGINEERING
Denumirea Instituției Organizatoare de Studii Universitare de Doctorat (IOSUD) unde a avut loc
ședința publică de susținere a tezei de abilitare/Name of the Institution Organizing Doctoral Studies
(IOSUD) where the defence of the habilitation thesis took place: **Universitatea Transilvania din
Brașov / Transilvania University of Brasov**

Punctele tari ale tezei de abilitare/Strong points of the habilitation thesis:

Presentation is very comprehensive covering important issues of value-added composites panels manufactured from agricultural waste within the perspective of sustainability. Also, surface quality of solid wood was elaborated from the point of better utilization of wood products.

The presentation of the scientifical research projects covering both basics and applied research which is the main strength of the work.

In addition to research projects, the candidate also developed a substantial amounts of international collaboration which put the name of faculty at the higher pedestal.

Punctele slabe ale tezei de abilitare/Week points of the habilitation thesis:

The committee members did not determined any weak point regarding thesis and as well as the presentation of the candidate.

Întrebările formulate de comisie și răspunsurile candidatului / Observațiile comisiei / Rezultatul votului/Questions asked by the committee and the candidate's answers / Committee's observations / Vote results:

Prof.dr.ing. CSIHA CSILLA

1. Developing sustainable insulation panels is very up to date research and aligns with the sustainability initiatives of the EC also. What is the amount of sunflower seed husks produced in the region, or in Romania? Can it be expected that the production of such panels will begin?

Answer: Romania is one of the first in Europe, as producer of sunflower, so we have enough materials, raw materials to produce this kind of boards. Although in our research, we had projects with a company that made oil and therefore our research was addressed to find a solution to produce this type of particleboards insulation or to be inserted into wood structure for wood buildings.

Prof.dr.ing. HIZIROGLU SALIM

1. Based on my limited experience with the rice husk, we had the silica content which creates some kind of problem. Did you have any kind of problem similar to the sunflower husk?

Answer: In the case of sunflower, we did not find such problems similar to rice husk.

2. As we all know, composite panels such as particleboard, is mostly used for interior applications. I noticed that you used MDI adhesive, which applicable mostly for exterior panels. Is there any particular reason you used exterior adhesive in your panels or maybe you just wanted to compare different adhesives?

Answer: Yes, we just considered to compare the influence of the type of adhesive and its content on properties of the panels. That is why we used the MDI adhesive and to determine how the panels behave for their mechanical and physical properties.

3. I know that you determined the surface roughness of solid wood samples. Could you explain what is the main objective of this?

Answer: The reason to determine the surface roughness of our samples so that we can apply finishing material more efficiently to enhance the overall quality of the finished product. Having smooth surface will not only reduce cost of the sanding and milling operation but also improve the finishing properties.

Prof.dr.ing. LLUNGULEASA AUREL

1. What were the main challenges you faced during the preparation of your habilitation thesis?

Answer: I tried to synthesis the research projects as clear as possible somehow seamless way for scientific committee so that I can state that I do not think I had any significant challenge which I faced during the preparing my work as well as its presentation.

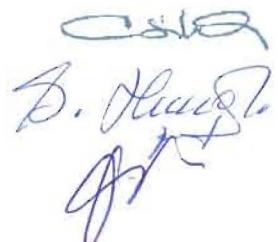
REZOLUȚIA COMISIEI DE ABILITARE / RESOLUTION OF THE HABILITATION COMMITTEE:

The members of the committee found that following the defence of the habilitation thesis and the evaluation of the professional, scientific and academic achievements of Assoc. Prof. dr.ing. Luminița – Maria BRENCI, specific criteria for obtaining the habilitation certificate are met and voted unanimously FOR THE GRANTING OF THE HABILITATION CERTIFICATE IN THE FIELD OF FOREST ENGINEERING.

COMISIA DE ABILITARE / HABILITATION COMMITTEE

Nume și prenume/Surname, first name: Semnătura/Signature

Prof.dr.ing. CSIHA CSILLA



Prof.dr.ing. HIZIROGLU SALIM

Prof.dr.ing. LUNGULEASA AUREL





Anexa 5

Universitatea Transilvania din Brașov
Facultatea de Design de Mobilier și Inginerie a Lemnului

PROCES VERBAL

încheiat cu ocazia susținerii publice a tezei de abilitare **Sustainable wood-based thermal insulation structures and surface quality assessment** elaborată de **Conf. dr. ing. Luminița – Maria BRENCI**, în vederea **obținerii atestatului de abilitare, în domeniul inginerie forestieră**.

Președintele deschide ședința, anunță scopul și prezintă comisia de abilitare, formată din:

SPECIALIST: Prof.dr.ing. Csilla Csilla, membru titular, Universitatea din Sopron, Ungaria
SPECIALIST: Prof.dr.ing. Hiziroglu Salim, membru titular, Oklahoma State University, S.U.A.
SPECIALIST: prof. dr. ing. Lunguleasa Aurel, membru titular, Universitatea Transilvania din Brasov, Romania

Se dă cuvântul doamnei conf.dr.ing. Luminița Maria BRENCI, care prezintă sinteza tezei de abilitare în limba engleză.

Se dă cuvântul, în continuare, specialiștilor din componența comisiei de abilitare.

Se consemnează întrebările formulate de membrii comisiei de abilitare și de publicul participant, precum și răspunsurile candidatului:

Prof.dr.ing. CSIHA CSILLA

1. Developing sustainable insulation panels is very up to date research and aligns with the sustainability initiatives of the EC also. What is the amount of sunflower seed husks produced in the region, or in Romania? Can it be expected that the production of such panels will begin?

Answer: Romania is one of the first in Europe, as producer of sunflower, so we have enough materials, raw materials to produce this kind of boards. Although in our research, we had projects with a company that made oil and therefore our research was addressed to find a solution to produce this type of particleboards insulation or to be inserted into wood structure for wood buildings.

Prof.dr.ing. HIZIROGLU SALIM

1. Based on my limited experience with the rice husk, we had the silica content which creates some kind of problem. Did you have any kind of problem similar to the sunflower husk?

Answer: In the case of sunflower, we did not find such problems similar to rice husk.

2. As we all know, composite panels such as particleboard, is mostly used for interior applications. I noticed that you used MDI adhesive, which applicable mostly for exterior panels. Is there any particular

reason you used exterior adhesive in your panels or maybe you just wanted to compare different adhesives?

Answer: Yes, we just considered to compare the influence of the type of adhesive and its content on properties of the panels. That is why we used the MDI adhesive and to determine how the panels behave for their mechanical and physical properties.

3. I know that you determined the surface roughness of solid wood samples. Could you explain what is the main objective of this?

Answer: The reason to determine the surface roughness of our samples so that we can apply finishing material more efficiently to enhance the overall quality of the finished product. Having smooth surface will not only reduce cost of the sanding and milling operation but also improve the finishing properties.

Prof.dr.ing. LUNGULEASA AUREL

1. What were the main challenges you faced during the preparation of your habilitation thesis?

Answer: I tried to synthesis the research projects as clear as possible somehow seamless way for scientific committee so that I can state that I do not think I had any significant challenge which I faced during the preparing my work as well as its presentation.

Au mai luat cuvântul, fără a avea întrebări, având doar aprecieri legate de activitatea de cercetare, didactică, colegială și relații internaționale următorii:

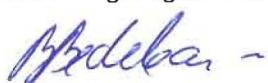
Prof.dr.ing. Barbu Marius Cătălin

Prof.dr.ing. Coșereanu Camelia

În final, după deliberări, președintele ședinței de susținere publică prezintă rezultatul propus de comisia de abilitare, respectiv că membrii comisiei au votat în unanimitate PENTRU ACORDAREA ATESTATULUI DE ABILITAREA ÎN DOMENIUL INGINERIE FORESTIERĂ, doamnei conf. dr. ing. Luminița Maria BRENCI.

În încheierea ședinței, se dă cuvântul candidatului.

Președinte,
Şef. Lucr. Dr. ing. Bogdan Bedelean



Secretar,
Şef. Lucr. Dr. ing. Cosmin Spîrchez

