

**LISTA PUBLICAȚIILOR REZULTATE ÎN URMA CERCETĂRII DOCTORALE,  
PUBLICATE SAU ACCEPTATE SPRE PUBLICARE, SUB AFILIERE UPT**

**Ing. Alexandru FILIPOVICI student doctorand**

**1. Lucrări științifice publicate în reviste indexate Web of Science-WoS (ISI)**

✓ 1. A. Filipovici, D. Țucu, A. Bialowiec, P. Bukowski, G.C. Crișan, S. Lica, j. Pulka, A. Dyjakon, M. Debowski, "Effect of Temperature and Heating Rate on the Char Yield in Sorghum and Straw Slow Pyrolysis", Revista de Chimie, Vol. 68, Issue 3, pp 576-580, 2017 (WOS:000400731900034)

**2. Lucrări științifice publicate în volumele unor manifestări științifice (Proceedings) indexate Web of Science-WoS (ISI) Proceedings**

✓ 1. A. Filipovici, A. V. Mnerie, D. Badescu, M. Bota, S. Maris, V. Baesu, T. Slavici, D. Ungureanu, "Agribusiness projects assessment using cost-benefit analyses", Proceedings of the 42nd International Symposium on Agricultural Engineering, Actual Tasks on Agricultural Engineering, Opatija, Croatia, pp 439-446, 2014 (WOS:000340762800038)

✓ 2. D. Țucu, A. Filipovici, "Controlled stems cutting module for src nurseries", Proceedings of the 42nd International Symposium on Agricultural Engineering, Actual Tasks on Agricultural Engineering, Opatija, Croatia, pp 397-404, 2014. (WOS:000340762800042)

✓ 3. Filipovici, D. Tucu, "Study of slow pyrolysis process in the case of energetic willow from banat region", Proceedings of the 44nd International Symposium on Agricultural Engineering, Actual Tasks on Agricultural Engineering Opatija, Croatia, pp 397-404, 2016 (în curs de indexare WoS; conferința anterioară (2015) indexată WoS)

**3. Lucrări științifice publicate în reviste de specialitate indexate BDI (cu specificarea BDI)**

1. A. Filipovici, D. Tucu, "A method of using rural biomass resource in a pyrolysis unconventional system for heating", Nonconventional Technologies Review Romania, vol. XVIII, Nr. 2/2014, , pp 57-61, 2014 (BDI : EBSCO)

2. A. Filipovici , D. Tucu , M. Adam, POTENTIAL OF USING BIOMASS RESOURCES IN PYROLYSIS SYSTEMS TO OBTAIN HEATING IN RURAL COMMUNITIES FROM ROMANIA, Journal of EcoAgriTourism, Vol. 11, no. 1, pp 35-41, 2015 (BDI: CAB Abstracts)

**4. Lucrări științifice publicate în volumele unor manifestări științifice (Proceedings) indexate BDI (cu specificarea BDI)**

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**5. Lucrări științifice publicate în volumele unor manifestări științifice internaționale (Proceedings) din străinătate**

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**6. Lucrări științifice publicate în volumele unor manifestări științifice**

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Data: 23.04.2018

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## ANEXE atașate obligatorii

A) Pentru Lucrări publicate indexate din Web of Science-WoS (ISI)(secțiunile 1-2), cu indicarea *WoSnumber* ex. WOS:000316957600003.

i)Extras listat din Web of Sciencecu lucrări indexate (ISI).

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Record 1 of 3

Title: Effect of Temperature and Heating Rate on the Char Yield in Sorghum and Straw Slow Pyrolysis

Author(s): Filipovici, A (Filipovici, Alexandru); Tucu, D (Tucu, Dumitru); Bialowiec, A (Bialowiec, Andrzej); Bukowski, P (Bukowski, Przemyslaw); Crisan, GC (Crisan, George Catalin); Lica, S (Lica, Septimiu); Pulka, J (Pulka, Jakub); Dyjakon, A (Dyjakon, Arkadiusz); Debowski, M (Debowski, Marcin)

Source: REVISTA DE CHIMIE Volume: 68 Issue: 3 Pages: 576-580 Published: MAR 2017

Abstract: Different approach to valorise the sweet sorghum using pyrolysis process to obtain valuable resources for energy production: bio-char, bio-oil and syngas are presented in the paper. In this study the influence of process parameters of slow pyrolysis on sorghum and straw were analysed. Temperatures used in the process varied from 400 to 800 degrees C and heating rate parameter varied from 10 degrees C. min(-1) to 65 degrees C. min(-1). The experiments were conducted using a lab scale slow pyrolysis reactor with electric heaters, equipped with a thermo balance analyzer to collect data of pyrolysis process. The achieved product yield can vary significantly according to the slow pyrolysis parameters. The temperature influenced more on the bio-char yield compared to the heating rate parameter. The highest bio-char yield (over 35% weight.) was obtained at 400 degrees C and heating rate of 10 degrees C. min(-1).

Accession Number: WOS:000400731900034

Author Identifiers:

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Lica, Septimiu		0000-0003-0891-8396

ISSN: 0034-7752

Record 2 of 3

Title: CONTROLLED STEMS CUTTING MODULE FOR SRC NURSERIES

Author(s): Tucu, D (Tucu, Dumitru); Filipovici, A (Filipovici, Alexandru)

Edited by: Kosutic S

Source: AKTUALNI ZADACI MEHANIZACIJE POLJOPRIVREDE Book Series: Actual Tasks on Agricultural Engineering-Zagreb Volume: 42 Pages: 397-404 Published: 2014

Abstract: The paper presents the results of developed cutting controlled module designated for integration in complex equipment for produce SRC stems in nurseries. At beginning, there are presented the method used for value analysis and base functions of future device. More base solutions were considered by using more criteria for future life cycle (technical, technological, manufacturing, exploitation, maintenance, recuperation etc.) and costs. It was developed an original method for analyzing the behavior or energetic willow stems (rods) while cutting accurately. The purpose of present paper is to provide one application for practical use, if it researches the behavior of willow rods for preparing in nurseries than use planting machines (e.g. EGEDAL "Energy Planter"). Nowadays and, also in the future, it will develop the use of the rods of plants, not only in cultivation system, also in industrialization of energetic willow. This system supposes more advantages technical, social, economical and for environment objectives. The results of different experiments were used for designing new cutting equipment for different rods as willow and poplar.

Accession Number: WOS:000340762800038

Conference Title: 42nd International Symposium on Agricultural Engineering

Conference Date: FEB 25-28, 2014

Conference Location: Opatija, CROATIA

Conference Sponsors: Univ Zagreb, Fac Agr, Agr Engr Dept, Fac Agr Univ Osijek, Sci Univ Maribor, Fac Agr Life, Agr Inst Slovenia, Agr Engr Inst Godollo, Croatian Agr Engr Soc, Ministarstvo Znanosti, Obrazovanja Sporta Republike Hrvatske, INA, Same Deutz Fahr Zetelice, Messis, Gospodarski List, Agrogrom, Findri, Geomatika Smolcak, Agromarketing

Author Identifiers:

Author	ResearcherID Number	ORCID Number
Tucu, Dumitru	G-3959-2016	0000-0002-1141-9945

ISSN: 1848-4425

Record 3 of 3

Title: AGRIBUSSINESS PROJECTS ASSESSMENT USING COST-BENEFIT ANALYSES

Author(s): Filipovici, A (Filipovici, Alexandru); Mneric, AV (Mneric, Alin Vasile); Badescu, D (Badescu, Doina); Bota, M (Bota, Mircea); Maris, S (Maris, Simina); Baesu, V (Baesu, Vioreca); Slavici, T (Slavici, Titus); Ungureanu, D (Ungureanu, Dragos)

Edited by: Kosutic S

Source: AKTUALNI ZADACI MEHANIZACIJE POLJOPRIVREDE Book Series: Actual Tasks on Agricultural Engineering-Zagreb Volume: 42 Pages: 439-445 Published: 2014

Abstract: Cost-benefit analysis is a method used for evaluating a policy which quantifies in monetary terms the value of all the consequences of this policy on all society members. Net social benefit expresses the value of this policy. The main purpose of cost-benefit analysis is to help decision-making and, in the end, to facilitate a more efficient allocation of resources. This paper presents the basic notions that a farmer should know about cost-benefit analyses before starting a business project: various types and methods of cost-benefit analyses. Further, the stages of a proper cost-benefit analysis are described. A pleading for the usage of computer-aided tools, such as expert systems, in order to obtain a more accurate forecast of the profits obtained from an agricultural venture is also sustained.

Accession Number: WOS:000340762800042

Conference Title: 42nd International Symposium on Agricultural Engineering

Conference Date: FEB 25-28, 2014

Conference Location: Opatija, CROATIA

Conference Sponsors: Univ Zagreb, Fac Agr, Agr Engr Dept, Fac Agr Univ Osijek, Sci Univ Maribor, Fac Agr Life, Agr Inst Slovenia, Agr Engr Inst Godollo, Croatian Agr Engr Soc, Ministarstvo Znanosti, Obrazovanja Sporta Republike Hrvatske, INA, Same Deutz Fahr Zetelice, Messis, Gospodarski List, Agrogrom, Findri, Geomatika Smolcak, Agromarketing

ISSN: 1848-4425

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**B) Pentru Lucrări nepublicate, trimise la Reviste indexate Web of Science (ISI) și acceptate final (secțiunea 1):**

*i) Accept final de publicare trimis de editor,*

*ii) Dovada indexării revistei (valoarea factor impact recent).*

**Nu este cazul.**

**C) Pentru lucrări publicate în Proceedings de conferințe care nu apar încă indexate în Web of Science (ISI), dar cu lucrări indexate la conferința anterioară (secțiunea 2):**

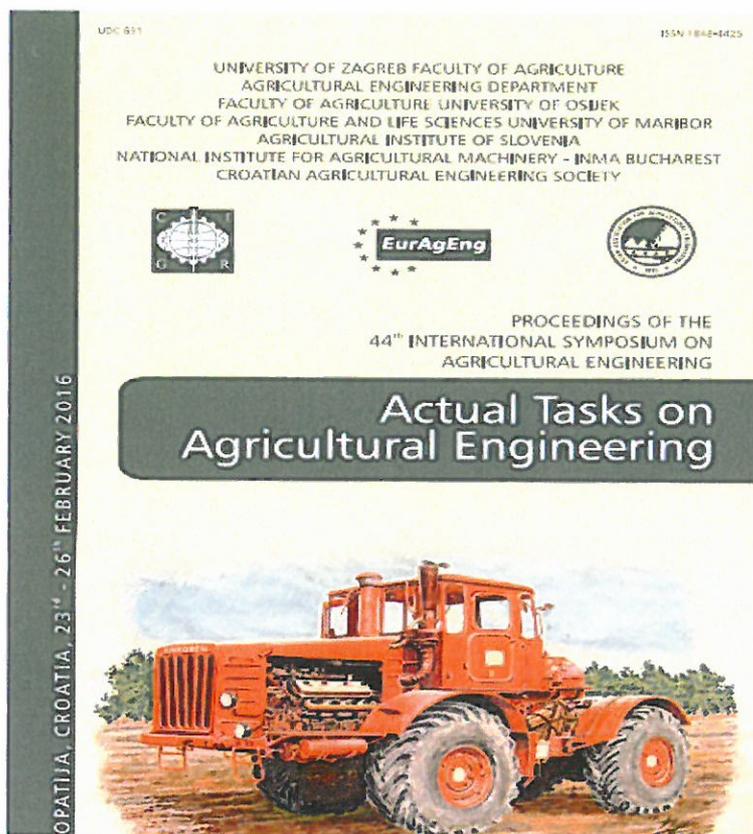
*i) Extras listat din Web of Science (ISI) care atestă că lucrările conferinței anterioare au fost indexate,*

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Record 1 of 1  
Title: RELATIONSHIP BETWEEN CUTTER INCLINATION AND CUTTING FORCE FOR THE STALKS OF SALIX VIMINALIS VAR. ENERGO  
Author(s): Tucu, D (Tucu, Dumitru)  
Edited by: Kovacev, I  
Source: AKTUALNI ZADACI MEHANIZACIJE POLJOPRIVREDE: ACTUAL TASKS ON AGRICULTURAL ENGINEERING Book Series: Actual Tasks on Agricultural Engineering-Zagreb Volume: 43 Pages: 695-702 Published: 2015  
Abstract: The paper presents the results of study regarding influences of cutter inclination on the cutting force in the case of the stems (roăa) of energetic willow (Salix viminalis var. Energo). An original research method is proposed, by the means of original equipment, designed and manufactured in the laboratories of "POLITECHNICA" University in Timisoara. The experiments were made with Inger variety at controlled moisture content, 0.025 m diameter of the rods, and a special cutting device integrated in a testing system for strength of materials (Zwick Roell Z005), which insures cutting speed constant at 0,001667 m.s<sup>-1</sup>. Four cutter inclination levels were tested (0, 10, 20, and 30, [sexagesimal degree]). In the same time, the cutting surface quality was observed and the moisture content was controlled. The results from experiments were analyzed for determine the relationship between cutting force and cutter inclination, and, also optimal parameters. The maximum cutting force was used to drive pneumatic system design for the knife of cutting module integrated in complex equipment for sorting and packaging SRC rods in nurseries.  
Accession Number: WOS:000373450700064  
Conference Title: 43rd International Symposium on Agricultural Engineering  
Conference Date: FEB 24-27, 2015  
Conference Location: Opatija, CROATIA  
Conference Sponsors: Univ Zagreb, Fac Agr, Univ Osijek, Fac Agr, Agr Engr Dept, Univ Maribor, Fac Agr Life Sci, Agr Inst Slovenia, Agr Engr Inst Godollo, Croatian Agr Engr Soc, Ministarstvo Znanosti, Obrazovanja Sporta Republike Hrvatske, INA, Same Deutz Fahr Zetelice, Messis, Agrogrom, Fundri, Geomatika Smolak, Agromarketing, Asian Assoc Agr Engr, EurAgEng, CIGR  
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ISSN: 1548-4425  
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*ii) Copertă și Cuprins Proceedings sau Program conferință cu evidențierea lucrării în speță.*

Lucrările se vor regăsi la secțiunea 2 cu mențiunea la final referinței – (în curs de indexare WoS; conferința anterioare (- ex. 2015) indexată WoS).



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44 Symposium "Actual Tasks on Agricultural Engineering", Opatija, Croatia, 2016	

## D) Pentru Lucrări publicate în alte BDI (secțiunile 3-4):

i) Extrase listate din alte BDI cu lucrări publicate indexate, specifice domeniului de doctorat, cu specificarea BDI la finalul referinței (Ex. BDI: Scopus, IEEE Xplore, ScienceDirect, SpringerLink).

### A METHOD OF USING RURAL BIOMASS RESOURCES IN A PYROLYSIS NONCONVENTIONAL SYSTEM FOR HEATING.

Source: Nonconventional Technologies Review / Revista de Tehnologii Neconventionale Jun2014, Vol. 16 Issue 2, p57-61, 5p.

Author(s): Filipovic, Alexandru; Tucii, Dumitru

#### Abstract:

This paper presents a proposal approach for valorisation of the rural biomass energy potential, by combining the characteristics of the pyrolysis technology with the unconventional resources in the rural environment, to create a technical-socioeconomic concept for energy production. Romania has an important untapped biomass potential in rural environment that can be used in local pyrolysis heating systems with future expansion possibilities on a national level approach.

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**Potential of using biomass resources in pyrolysis systems to obtain heating in rural communities from Romania.**

Author(s) : Filipovic, A., Tucii, D., Adam, M.  
 Journal article, Conference paper : Journal of EcoAgriTourism 2015, Vol. 11, No. 1, pp.35-41, ref.23  
 Conference Title : Global and local challenges in food science and technology, 3rd NEEFOOD Congress, Brasov, Romania, 20-23 May, 2015.

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