



ISAE 2019
Belgrade, Serbia
 31.October - 2.November 2019

FINAL PROGRAM OF ISAE-2019 SYMPOSIUM

University of Belgrade, Faculty of Agriculture, Nemanjina 6, 11080 Belgrade, Serbia

Thursday 31 st of October 2019	
10:00 – 10:30	Registration (Entrance of the Conference hall, 1 st floor)
10:30 – 11:00	Symposium opening (Conference hall, 1 st floor, no. 130) Dr Vladan Bodanović, Faculty of Agriculture, Vice dean for Science Dr Miloš Pajić, Faculty of Agriculture, Head of the Department for Agricultural engineering Dr Ivan Zlatanović, ISAE 2019 organizing Committee President Dr Miloš Banjac – Ministry of Mining and Energy Dr Pietro Picuno, SAFE School, Potenza, Italy Dr Selim Škaljić, Faculty of Agriculture and Food Sciences, Sarajevo, Bosna and Herzegovina Dr Jonel Subić, Institute for Agricultural Economics Dr Vojislav Simonović, University of Belgrade, Faculty of Mechanical Engineering, Belgrade, Serbia Nebojša Vučković, dipl. ing. AMAZONEN WERKE, Serbia
11:00 – 13:00	Session I – Sustainable agriculture and biosystems engineering (Conference hall, 1 st floor) Chairmen: <i>Picuno Pietro, Škaljić Selim, Silvio Košutić</i>
11:00 – 11:20	Peter Bernad, Peter Lepej, Miran Lakota , Jurij Rakun THE USE OF A 3D LIDAR SENSOR IN AUTONOMIC BASED NAVIGATION ON THE FIELD.
11:20 – 11:40	Nevena Tasić , Dragan Marković, Vojislav Simonović, Goran Mladenović, Ivana Medojević, Aleksandra Joksimović THE MODELING OF THE FRONT TRACTOR PLATFORM FOR CROP SPECTROMETRY
11:40 – 12:00	Yusuf Ucar , Mevlüt Türk Sema Kale Çelik, Mehmet Alagöz, Emre Topçu FIELD USE AND CALIBRATION OF TWO DIFFERENT TIME DOMAIN REFLECTOMETRY SENSORS
12:00 – 12:20	Sabrija Čadro , Selim Škaljić, Nermin Rakita, Jasminka Žurovec A MODERN SOFTWARE METHODS FOR CORN IRRIGATION
12:20 – 12:40	Zuhdija Omerović , Nermin Rakita, Selim Škaljić SELECTION OF OPTIMUM PARAMETERS OF SETTING OF MOTORIZED KNAPSACK SPRAYERS FOR RASPBERRY PROTECTION
12:40 – 13:00	Pietro Picuno FARM BUILDINGS AS DRIVERS OF RURAL LANDSCAPE SHAPING: A LITERATURE REVIEW
13:00 – 14:00	Coffee break
13:00 – 14:30	Poster presentations and Discussion (Conference hall and Room 115, 1 st floor)
14:45 – 15:30	Lunch (Restaurant, ground floor)
15:30 – 17:00	Session II – Soil tillage and agroecosystem protection Session III – Economics in agricultural engineering (Conference hall, 1 st floor) Chairmen: <i>Danijel Jug, Mehmet Musa Ozcan, Saša Todorović</i>
15:30 – 15:50	Danijel Jug , Irena Jug, Boris Đurđević, Bojana Brozović, Bojan Stipešević CURRENT STATUS AND NEW POSSIBLE CHALLENGES IN SOIL TILLAGE SYSTEMS
15:50 – 16:10	Milena S. Simić , Vesna. D. Dragičević, Branka J. Kresović, Milan Z. Brankov, Željko K. Dolijanović, Zoran J. Dumanović

	SOIL TILLAGE ADJUSTED TO CLIMATE CHANGES AND MAIZE GROWING SYSTEM
16:10 – 16:30	Yorianta Sasaerila , Arief Pambudi, Yunus Effendy, Nita Noriko, Risa Swandari Wijihastuti EFFECT OF RUBBER (<i>Hevea brasiliensis</i> L) CANOPIES ON THE GROWTH OF <i>Canna indica</i> L
16:30– 16:50	Özcan, M. M. , Erdem, A. N. THE EFFECT OF CHIA SEED (<i>Salvia hispanica</i> L.) ON BIOACTIVE COMPONENTS AND HUMAN HEALTH
16:50 – 17:10	Saša Todorović, Sanjin Ivanović , Zorica Vasiljević EVALUATION OF INVESTMENTS IN GPS GUIDANCE SYSTEMS AT SERBIAN CROP FAMILY FARMS
20:00	<i>Gala diner</i>

Friday 1st of November 2019

10:00 – 11:30	Session IV – Energy and energy efficiency in agriculture Chairmen: <i>Nedžad Rudonja, Alberto Barbaresi</i>
10:00 – 10:15	Enrica Santolini , Marco Bovo, Alberto Barbaresi AGRICULTURAL BYPRODUCTS AS RAW MATERIALS FOR INSULATION: THERMAL AND ACOUSTIC CHARACTERIZATION
10:15 – 10:30	Alberto Barbaresi , Francesco Tinti, Kristina Strpić, Enrica Santolini, Marco Bovo VERY SHALLOW GEOTHERMAL SYSTEM FOR ENERGY EFFICIENCY IN DAIRY BARNs
10:30 – 10:45	Marco Bovo, Alberto Barbaresi , Enrica Santolini ENERGETIC FEATURES AND BUILDING USE FOR NEW EFFICIENT RURAL BUILDINGS
10:45 – 11:00	Mladenović R. Milica , Živković S. Goran, Vučičevića S. Biljana GUIDELINES FOR ORGANIZED AND ENERGY EFFICIENT USE OF BIOMASS AND THE KEEPWARM INTERNATIONAL PROJECT PROMOTION
11:00 – 11:15	Gojak Milan, Todorović Ružica, Rudonja Nedžad ENERGY AND EXERGY ANALYSIS OF FUEL CONSUMPTION IN AGRICULTURAL SECTOR – SERBIAN CASE
11:15 – 11:30	Firfiris Vasileios , Kalamaras Sotiris, Martzopoulou Anastasia, Kotsopoulos Thomas EXPLOITATION OF THE RENEWABLE ENERGY POTENTIAL IN NORTH GREECE FOR THE DESIGN OF A ZERO ENERGY CONSUMPTION POULTRY HOUSE- CALCULATION AND INITIAL DESIGN
11:30 – 12:00	Closing of the official part of the ISAE 2019 Symposium Coffee break
13:00 – 15:00	Belgrade – Danube and Sava rivers sightseeing tour
16:00	Agricultural Engineering Banquet

Saturday 2nd of November 2019

9:00 – 18:00	Excursion on the third day of the conference – scientific and touristic tour. 60 €/person - applications will be received at the registration desk. Excursion plan: (<u>Fruška Gora National Park One Day Tour</u>) 09:00 Gathering in front of the Faculty of Agriculture 10:00 – 12:00 Visiting “Grow Rasad” Modern greenhouse production facilities 12:00 – 13:00 Visiting “Perkov Salaš” Ethno farm 13:00 – 15:00 Visiting medieval town of Sremski Karlovci situated along the Danube river with beautiful baroque architecture 15:00 – 17:00 Visiting Winery Deurić, lunch and wine tasting 18:00 Arrival to Belgrade (aprox.time)
--------------	---

POSTER PRESENTATION, Room 115, 1st floor

Thursday, 31.10.2019.

13:00 – 14:30

Section I: Sustainable agriculture and biosystems engineering

1.1. Vojislav Simonović, Dragan Marković, Ivana Medojević, Aleksandra Joksimović, Nevena Tasić
FLIGHT HIGHT OF UAS AND OVERLAP OF IMAGES BY MULTISPECTRAL CAMERA OPTIMIZATION FOR CROP SCOUTING

1.2 Aleksandra Joksimović, Dragan Marković, Vojislav Simonović, Ivana Medojević, Nevena Tasić
INNOVATIVE APPROACH TO TEACHING THROUGH THE IMPLEMENTATION OF A PROJECT BILLETS MAKING MACHINES FOR LAYING FOIL AND PLANTING SEEDLINGS

1.3 L. Magó, A. Cvetanovski, MAĐARSKA
SMART MACHINES FOR PRECISION AND EFFICIENT FERTILIZING

1.4. Gligorević Kosta, Pajić Miloš, Zlatanović Ivan, Dražić Milan, Oljača Mićo
ANALYSIS OF THE CAUSES OF TRAFFIC ACCIDENTS WITH TRACTORS AND MOBILE AGRICULTURAL MACHINERY IN THE REPUBLIC OF SERBIA

1.5. Laskos Vassilios, Firiris Vasileios, Kalamaras Sotirios, Christou Maria, Martzopoulou Anastasia, Kotsopoulos Thomas, Fragos Vasislios
A REVIEW OF SUPERCOMPUTERS USE IN AGRICULTURE STRUCTURES AND APPLICATIONS

1.6. Nebojša M. Balać, Zoran I. Mileusnić, Rajko M. Miodragović, Aleksandra Ž. Dimitrijević
GAS EXHAUST EMISSION OF TRACTORS DIFFERNT CATEGORIES

1.7. Biljana Bošković, Miloš Pajić, Milan Dražić, Kosta Gligorević, Ivan Zlatanović, Nebojša Balać, Milovan Živković
TECHNICAL CORRECTNESS OF ORSHER SPRAYER IN INTENSIVE FRUIT AND VINE PRODUCTION IN REPUBLIC OF SERBIA

1.8. Sabahudin Tahmaz, Selim Škaljić, Nermin Rakita
INFLUENCE OF DIFFERENT MILKING SYSTEMS ON HYGIENIC AND MICROBIOLOGICAL QUALITY OF RAW COW MILK

1.9. Radomirović M. Dragi, Ponjičan O. Ondrej, Nikolić M. Nebojša, Turan J. Jan, Sedlar D. Aleksandar, Višacki V. Vladimir
MOVEMENT SOIL SLICE ALONG THE ROTARY TILLER KNIFE UNTIL REJECTING

1.10. Petrović V. Dragan, Vuković Aleksandar, Radojević L. Rade, Barać Saša, Mileusnić I. Zoran, Cerović B. Vera, Milenković Bojana
ON THE LOOSSES OF ALFALFA DURING HAY PREPARATION

1.11. Pajić Miloš, Bošković Biljana, Gligorević Kosta, Dražić Milan, Zlatanović Ivan, Žujović Jovanović Suzana
RESULTS ON THE USAGE OF UAV IN CHEMICAL PLANT PROTECTION

1.12. Milovan Živković, Milan Dražić, Slavica Todić, Vaso Komnenić, Kosta Gligorević, Miloš Pajić, Ivan Zlatanović
APPLICATION OF MACHINES IN THE PROCEDURE OF DEFOLIATION OF GRAPEVINE

1.13. Kovačev Igor, Mesar Hrvoje, Jukić Željko
EFFICIENCY OF MECHANISED COLLECTION OF SOYBEAN STRAW

Section II: Soil tillage and agroecosystem protection

2.1 TÜLEK Senem, DOLAR F. Sara
PATHOGENICITY METHODOLOGY of *Rhizoctonia solani* in CARROT

2.2. Radojević L. Rade, Barać R. Saša, Petrović V. Dragan, Vuković D. Aleksandar, Biberdžić O. Milan, Kurt W. Tomantschger
THE INFLUENCE OF THE MOTION MECHANISM OF TRACTOR AND MOBILE SYSTEMS ON SOIL COMPACTION

2.3. Hakkı TURAP, İlhan KAYA
DETERMINATION OF WEED PROBLEMS OF CORN GROWING AREAS (ZEA MAYS L.) IN ADANA/TURKEY

Section III: Energy and energy efficiency in agriculture

3.1. Adrian Beteringhe, Nicolae Marian, Nicole-Livia Petculescu, Sia Săraru, Floarea Nicolae
PREDICTION OF FRUIT FIRMNESS INVOLVING MODERN COMPUTATIONAL TECHNIQUES

3.2. Mladenović R. Milica, Marinković D. Ana, Savić Z. Jasmina, Nemoda Đ. Stevan
EXPERIMENT OF THE SNCR DENITRIFICATION OF FLUE GASES PRODUCED BY BIOMASS COMBUSTION

3.3. Marinković D. Ana, Buha-Marković Z. Jovana, Savić Z. Jasmina, Branislav S. Repić, Mladenović R. Milica
ENVIRONMENTAL RISK OF UTILIZATION OF BOTTOM AND FLY ASHES FROM CIGAR BURNER BIOMASS COMBUSTION SYSTEM AS A SOIL FERTILIZER

3.4. Buha-Marković Z. Jovana, Marinković D. Ana, Savić Z. Jasmina, Nemoda Đ. Stevan
COMPARISON OF SEMI-VOLATILE ORGANIC COMPOUNDS CONTENT IN ASHES FROM COMBUSTION OF AGRICULTURAL BIOMASS AND COAL

3.5. Marian Nicolae¹, Nicole-Livia Petculescu¹, Adrian Beteringhe¹, Ion Nicolae¹, Andrei Nicolae
MANAGEMENT OF RENEWABLE ENERGIES IN THE CONTEXT OF REDUCING THE POLLUTION AND ENSURING THE SUSTAINABILITY WITHIN THE CAMPUS OF BIOTERRA UNIVERSITY IN BUCHAREST

3.6. Ivan Zlatanović, Nebojša Nedić, Kosta Gligorević, Miloš Pajić, Milan Dražić, Kazimir Matović
FREEZE-DRYING CHARACTERISTICS FOR THE CONSERVATION OF BEE POLLEN

Section IV: Economics in agricultural engineering

4.1. Geanina Florescu, Marian Nicolae, Ion Nicolae, Floarea Nicolae
NEW PARADIGMS ON THE ECONOMIC EFFICIENCY OF VARIOUS TECHNICAL SOLUTIONS IN AGRICULTURE