

INTERNATIONAL SCIENTIFIC JOURNAL

# MECHANIZATION IN AGRICULTURE

# & CONSERVING OF THE RESOURCES



Issue 3  
2021

Year LXVII, ISSN print 2603-3704, ISSN web 2603-3712

SCIENTIFIC TECHNICAL UNION OF MECHANICAL ENGINEERING  
BULGARIAN ASSOCIATION OF MECHANIZATION IN AGRICULTURE



PUBLISHERS

**SCIENTIFIC-TECHNICAL UNION OF MECHANICAL ENGINEERING "INDUSTRY-4.0"  
BUGLARINA ASSOCIATION OF AGRICULTURAL MACHINERY**

**ISSN (PRINT) 2603-3704, ISSN (ONLINE) 2603-3712**

**YEAR LXVII ISSUE 3 / 2021**

### **EDITORIAL BOARD**

**Chief Editor:** Prof. Dr. eng Miho Mihov

**Responsible secretary:** Corresp. Memb. Prof. D.Sc. Hristo Beloev

#### **MEMBERS:**

Acad. D.Sc. Jemal Katsitadze – Georgia  
Acad. D.Sc. Sayakhat Nukeshev - Kazakhstan  
Acad. D.Sc. Volodymyr Bulgakov – Ukraine  
Acad. D.Sc. Valeriy Adamchuk – Ukraine  
Prof. Abdullah Sessiz - Turkey  
Prof. Abdulrahman Al-soqeer - Saudi Arabia  
Prof. Alexander Tokarev - Russia  
Prof. Alexey Vassilev - Russia  
Assoc.Prof. Angel Trifonov - Bulgaria  
Prof. Anupam Kumar Nema - India  
Prof. Ayrat Valiev - Russia  
Prof. Barbro Ulén - Sweden  
Prof. Carmen Puia - Romania  
Prof. Cheslav Vashkievich - Poland  
Prof. Cumhuri Aydinalp - Turkey  
Prof. Daisuke Higaki - Japan  
Prof. Davor Romic - Croatia  
Prof. Domenico Pessina - Italy  
Dr. Finn Plauborg - Denmark  
Assoc.Prof. Ganka Baeva - Bulgaria  
Assoc.Prof. Georgi Mitev - Bulgaria  
Prof. Georgi Tassev - Bulgaria  
Prof. Haiyan Huang - China  
Prof. Hoang Thai Dai - Vietnam

#### **MEMBERS:**

Prof. Iliya Malinov - Bulgaria  
Prof. PhD Iurie Melnic - Moldova  
Assoc.Prof. Ivan Ivanov - Bulgaria  
Prof. Jan Szczepaniak - Poland  
Prof. Komil Muminov - Uzbekistan  
Prof. Krassimira Georgieva - Bulgaria  
Prof. Maja Manojlović - Serbia  
Prof. Mihail Iliev - Bulgaria  
Prof. Mohammad Salem Al-Hwaiti - Jordan  
Prof. Papamichail Dimitris - Greece  
Prof. Pavel Tlustos - Czech Republic  
Prof. Plamen Kangalov - Bulgaria  
Prof. Ralph Meissner - Germany  
Prof. Rossen Ivanov - Bulgaria  
Prof. Svetla Rousseva - Bulgaria  
Prof. Tadeusz Pawłowski - Poland  
Prof. Tamara Persikova - Belarus  
Prof. Valentina Kundius - Russia  
Prof. Wojciech Tanaś - Poland  
Prof. Yerbol Sarkynov - Kazakhstan  
Prof. Zdenko Tkach - Slovakia  
Prof. Zinta Gaile - Latvia  
Prof. Zivko Davchev - Macedonia

The journal "MECHANIZATION IN AGRICULTURE & CONSERVING OF THE RESOURCES" is continuer of the journals "Mechanized farming" (1948-1957), "Mechanization and electrification of agriculture" (1959-1980) and "Mechanization of agriculture" (1981-1991)

108, Rakovski Str., 1000 Sofia, Bulgaria  
tel. (+359 2) 987 72 90, tel./fax (+359 2) 986 22 40,  
[office@stumejournals.com](mailto:office@stumejournals.com)  
[WWW.STUMEJOURNALS.COM](http://WWW.STUMEJOURNALS.COM)

# CONTENTS

## **MECHANIZATION IN AGRICULTURE**

<b>GIS support of forming spatial decisions on land use</b> Antonina Moskalenko .....	79
<b>Advantages and vision for the Bulgarian economy in rural areas after 2021</b> Martin Banov, Keranka Nedeva, Nanyo Nanev .....	82
<b>Development in the educational process and research and production activity of modern technologies and technical means of field irrigation</b> Viktor Pryshliak, Vasyly Kurylo .....	85
<b>GIS of crop monitoring remote sensing system</b> Svitlana Kokhan, Oleg Drozdovskiy .....	89
<b>Methodical approach for assessing the quality of storage of grain harvesters</b> Miho Mihov .....	91

## **CONSERVING OF THE RESOURCES**

<b>How do manage water resources more productive in water scant agro-zones?</b> Bilal Acar, Bilal Ata, Harun Dinç .....	94
<b>Influence of urease inhibitor on mineral nitrogen content in soil and productivity of winter wheat</b> Kazimieras Poškus, Brazienė Zita, Gediminas Staugaitis, Loreta Aleknavičienė .....	97
<b>Analysis of climatic variations and the ability of organic farming systems to adapt to climate change in the Northern Western Lowlands - Shkodra area in Albania</b> Adrian Doko, Ada Fyshku, Simir Krasniqi, Adri Erebara, Albert Kopali .....	100
<b>Assessment of vegetation establishment on different tailings depot at an iron ore-mining site of Gol-e-Gohar, Sirjan, Iran, three years after depot</b> Naseri Hamidreza H.R, Ahmadi Kohbanani, M. R.; Azizabadi Farahani, E.; Yazdanpanah Shahabadi, A. ....	106
<b>Influence of the irrigation regime on the yields of tomatoes and green beans in open areas, with sprinkler irrigation</b> Rumiana Kireva, Miho Mihov .....	109
<b>Surface modified silica gels and an express method for determination of their specific surface area</b> Kamelia Ruskova Liliya Manoilova .....	111
<b>Microbiological properties of Alluvial-meadow soil on flooded and non-flooded river terrace</b> Milena Kercheva, Jonita Perfanova, Kostadinka Nedyalkova, Katerina Doneva .....	114