FEDERATION OF THE SCIENTIFIC ENGINEERING UNIONS (FSEU)

VII INTERNATIONAL SCIENTIFIC CONGRESS

AGRICULTURAL MACHINERY

PROGRAM

ORGANIZER:

SCIENTIFIC -TECHNICAL UNION OF MECHANICAL ENGINEERING

ROUSSE UNIVERSITY - ANGEL KANCHEV

BULGARIAN ASSOCIATION OF AGRICULTURAL MECHANIZATION

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26.06 – 29.06.2019
BURGAS, BULGARIA

PROGRAM

26.06.2019 (Wednesday)

16:00 – 20:00	REGISTRATION	IN FRONT OF THE CONFERENCE HALL

27.06.2019 (Thursday)

08:00 – 10:00	REGISTRATION	IN FRONT OF THE CONFERENCE HALL

CONFERENCE HALL	
10:00 – 10:15	OPENING OF THE CONGRESS
10:15 – 12:30	PLENARY SESSION

12:30 – 12:40	COLLECTIVE PICTURES OF PARTICIPANTS	IN FRONT OF THE SWIMMING POOL

LUNCH BREAK 12:30 - 14:00 (NO LUNCH PROVIDED)

CONFERENCE HALL	
14:00 – 15:30	**SESSION** "Agricultural machines. Research and testing. New machine designs."
15:30 – 16:00	COFFEE BREAK - THE RESTAURANT OF HOTEL "ATLANTIS"
16:00 – 17:30	**SESSION "**Uses of machines. Innovative technologies. Conserving Soils and Water."

CONFERENCE HALL	
09:00 – 18:00	**POSTER SESSION** "Agricultural machines. Research and testing. New machine designs."
09:00 – 18:00	**POSTER SESSION** "Uses of machines. Innovative technologies. Conserving Soils and Water."

19:30 – 24:00	**"WELCOME" COCKTAIL - The restaurant for breakfast**

28.06.2019 (Friday)

CONFERENCE HALL	
09:00 – 12:00	**POSTER SESSION** "Agricultural machines. Research and testing. New machine designs."
09:00 – 12:00	**POSTER SESSION** "Uses of machines. Innovative technologies. Conserving Soils and Water."

10:00	**CLOSING OF THE CONGRES - WINE AND CHEESE PARTY**	**THE RESTAURANT OF HOTEL "ATLANTIS"**

SCIENTIFIC PROGRAM

27.06.2019 **10:00 – 10:15**	**OPENING OF THE CONGRESS** **CHAIRMANS:** **Prof. Dr. MIHO MIHOV** **Assoc. Prof. Dsc GEORGI MITEV**			**CONFERENCE HALL**
	Congratulations from **Prof. Dr. VASIL NIKOLOV** - Chairman of the Agricultural Academy			
27.06.2019 **10:15 – 12:30**	**PLENARY SESSION**			**CONFERENCE HALL**
CHAIRMAN: PROF. DR. PAVOL FINDURA (SK)		**CO-CHAIRMAN: PROF. DR. WOJCIECH TANAŚ (PL)**		
1	ECONOMIC SCHEDULING MODEL FOR MECHANICAL-MANUAL MANUFACTURING OF SEASONAL PRODUCT UNDER UNCERTAIN SUPPLY TIME AND QUANTITY OF THE RAW MATERIALS	Prof. Gurevich G., Prof. Keren B., Prof. Laslo Z. SCE-Shamoon College of Engineering, Beer Sheva, Israel	06	IL
2	A COMPARISON ON HARVEST TECHNOLOGIES USED IN OLIVE HARVEST	M.Sc. Eng. Tuğba Biçen, Prof. Dr. Ali Vardar Bursa Uludağ University, Institute of Natural and Applied Science	14	TR
3	THEORETICAL RESEARCH OF TRACTIVE RESISTANCE OF ROTARY TYPE SEEDERS	Ass. Prof., PhD, Iu. MELNIC, Ass. Prof., PhD, Piotr SCLEAR State Agrarian University of Moldova, Chisinau	71	MD
4	ELECTROMAGNETIC STIMULATOR BEANS / SEEDS "EMC" FOR PRIORITY SPECIES CROP	Sadykov J., Espolov T., Zhalnin E., Shibryaeva L.,Turguzhanova A., Makasheva E., Alchimbayeva A. Kazakh National Agrarian University	47	KZ
5	TRENDS IN THE DEVELOPMENT OF ROLL BALER AND BALER WRAPPER MACHINES FOR THE PRODUCTION OF HAYLAGE	Szczepaniak J. Szychta M., Szulc T.,Wojciechowski J., Gajek D., Rogacki R. Industrial Institute of Agricultural Engineering, Poznan	64	PL
6	CONTEMPORARY METHODS AND TOOLS FOR SOIL ANALYSIS	Assoc. Prof. DSc Georgi Mitev, Dr. Krasimir Bratoev Angel Kanchev University of Ruse	72	BG

COLLECTIVE PICTURES OF THE PARTICIPANTS - IN FRONT OF THE SWIMMING POOL

LUNCH BREAK 12:30 - 14:00 (NO LUNCH PROVIDED)

27.06.2019 **14:00 – 15:30**	**SESSION "Agricultural machines. Research and testing. New machine designs."**			**CONFERENCE HALL**
CHAIRMAN: PROF. DR. MIHO MIHOV (BG)		**CO-CHAIRMAN: PROF. DR. KANGALOV PL. (BG)**		
7	DETERMINING THE OPTIMAL WORKING MODES OF WORKING COMBINED MACHINES IN TEA PLANTATIONS USING THE THEORY OF SIMILARITY AND DIMENSION	Dr. G.Kutelia, Dr. V. Murruashvili Scientific-Research Centrer Of Agriculture	10	GE
8	ANALYSIS AND JUSTIFICATION OF WAYS TO IMPROVE HEAT PUMPS	PhD Student Demesova Saule Talgatovna Kazakh National Agrarian University	08	KZ

time for presentation 10-12 minutes,
questions after each presentation

9	EVALUATION OF LOSSES AT ROLLING OF TRACTOR WHEELS ON SELECTED AGRICULTURAL GROUNDS	Marek Brennensthul PhD Wrocław University of Environmental and Life Science	28	PL
10	COMPARATIVE ANALYSIS OF SOIL CRUSHING AFTER PLOUGHING WITH TWO TYPES OF PLOUGHBODIES	Assitant Dr. I. Zaprianova, Prof. Dr. Z.Zaprjanov Agricultural university, Plovdiv	56	BG
11	SURFACE ROUGHNESS OF RECONDITIONED DETAILS HAVING DIFFERENT MATERIALS OF FRICTIONAL PAIRS	Assoc. Prof. Nikolov M. PhD, Prof. Kangalov P. University of Ruse	01	BG
12	DURABILITY INCREASE OF DEPOSITED LAYERS OF IRON PARTS OF AGRICULTURE AND TRANSPORTING MACHINERY EQUIPMENT THROUGH VIBRATING ARC OVERLAYING PROCESS IN GAS MIXTURES	Assoc. Prof. Mitko Nikolov, PhD, University of Ruse	02	BG

15:30 – 16:00	**COFFEE BREAK - THE RESTAURANT OF HOTEL "ATLANTIS"**

27.06.2019 **16:00 – 17:30**	**SESSION "Uses of machines. Innovative technologies. Conserving Soils and Water"**		**CONFERENCE HALL**	
CHAIR: PROF. DR. ALI VARDAR (TR)		**CO-CHAIRMAN: ASSOC.PROF. DSC GEORGI MITEV (BG)**		
13	EVALUATION OF IMPACT OF TRACTOR WHEELS ON AGRICULTURAL GROUNDS	Agata Małecka Wrocław University of Environmental and Life Science	29	PL
14	ANALYSIS OF CHANGES SELECTED PROPERTIES IN TILLAGE TECHNOLOGIES	Jarosław Czarnecki PhD Wrocław University of Environmental and Life Science	30	PL
15	ANALYSIS OF CHANGES ON TURFGRASS AS A RESULT OF INTENSIVE UTILIZED	Weronika Ptak Wrocław University of Environmental and Life Science	31	PL
16	QUALITY OF SPRAYING – OPTIMIZATION BASED ON NEURAL NETWORK MODELS AND GENETIC ALGORITHM	Dr. Beata Cieniawska Wrocław University of Environmental and Life Science	35	PL
17	BENDING STIFFNESS OF ENERGY PLANT STALKS	Monika Słupska, Roman Stopa Wrocław University of Environmental and Life Science	57	PL
18	MATHEMATICAL MODELING OF PROCESSES IN THE SYSTEM OF PERFORMANCE AUTOMATIC CONTROL OF THE SMALL FEED-PROCESSING PLANT	Prof. DSc Keshuov C.[1], Dr. Berdimurat A.[2], senior lecturer Charibayeva S.[3], Dr. Usipbekova D.[4] LLP «Kazakh scientific research institute mechanization and electrification of agriculture»[1] - Kazakh national agrarian university[2,3] Almaty University of Power Engineering and Telecommunications[4]	04	KZ
19	DEVELOPMENT OF INNOVATIONAL TECHNOLOGIES OF AGRICULTURAL MACHINES PROJECTING AND THEIR INFLUENCE ON THE FORMATION OF PROFESSIONAL COMPETENCIES OF AGRICULTURAL ENGINEER	Assoc.Prof. Dr. Viktor Pryshliak Vinnytsia National Agricultural University	66	UA

time for presentation 10-12 minutes,
questions after each presentation

19:30 – 24:00	“WELCOME” COCKTAIL - The restaurant for breakfast

Tuesday (26.06)	09:00 – 19:00	POSTER SESSION	CONFERENCE HALL 1
Wednesday(27.06)	09:00 – 12:00	“Agricultural machines. Research and testing. New machine designs.”	

20	COMPUTERIZED TEST BENCH FOR TRACTOR CABS	Assist. prof., Dr. of Tech .Sc. Girutski I.I., Assist. prof. Senkov A.G. PhD. Belarussian State Agrarian Technical University	15	BY
21	IDENTIFICATION OF “TEKRONE” MATERIAL AND JUSTIFICATION OF ANALOGUES FOR MANUFACTURING MOULDBOARD PLOUGHS	Prof. DSc. Kobets A.[1], Assoc. Prof. Dr. Derkach[1], Assoc. Prof. Dr. Kabat O.[1] Assoc. Prof. Dr. Makarenko D.[1] , Prof. DSc Aulin V.[2] , PhD Student Muranov E.[1], Eng. Shapoval A.[3] [1]Dniprovsky State Agrarian-Economic University [2]Central Ukrainian National Technical University, [3]Research and Production Enterprise “Soyuz Composite"	16	UA
22	STUDY OF THE CHANGE OF THE MOMENTS OF FRICTION FOR ELECTROLYTIC RECOVERY IRON COATINGS	Prof. Kangalov P., PhD, Beleva D. PhD stud., University of Ruse	43	BG
23	DEVELOPMENT OF PNEUMATIC SEEDER FOR SOWING GRAIN CROPS	Aduov M. A. Nukusheva S. A. Kaspakov E. Z. Isenov K. G. Volodya K. Tulegenov T.K. S.Seifullin Kazakh Agrotechnical University, Astana	45	KZ
24	SUBSTANTIATION OF CONSTRUCTIVE PARAMETERS OF THE SEEDING MACHINE FOR SOWING OF NON FLOWING GRASS SEEDS	Aduov M.D.d.tech sci., professor; Nukusheva S.A. Ph.D.; Kaspakov E. Zh.cand.tech.sci., Isenov K.G. PhD; Volodya K.M., Tulegenov T.K. doctoral students S.Seifullin Kazakh Agrotechnical University, Astana,	46	KZ
25	MODEL OF THE HAMMER OF SMALL-SIZE CRUSHER OF GRAIN MATERIALS	Assoc. Prof. DSc Kuzminskyj R., Assis. Dr. Sheremeta R., Assoc. Prof. Dr. Krupych O., Assoc. Prof. Dr. Koruniak P. Lviv National Agrarian University	51	UA
26	DEVELOPMENT OF THEORY OF THE DRIVE OF STATIONARY AGRICULTURAL MACHINES WITH LEVER MECHANISMS	Prof. Dr. Volodymyr Bulgakov[1] , Dr. Yevhen Ihnatiev[2] [1]National University of Life and Environmental Sciences of Ukraine, [2]Tavria State Agrotechnological University	61	UA
27	INCREASING AND JUSTIFICATION OF DEMAND FOR THE MODERNIZATION OF AGRICULTURAL MACHINERY	Prof. Eng. Volodymyr Bulgakov1 PhD., Assis. prof. Eng. Vitaliy Movchan2 PhD., Eng. Yevhen Ihnatiev2 PhD., Assis. prof. Eng. Vasil Mitkov2 PhD. [1]National University of Life and Environmental Sciences of Ukraine, [2]Tavria State Agrotechnological University	62	UA

time for presentation 10-12 minutes,
questions after each presentation

28	PROPAGATION OF THE LEAST (MINIMUM) QUASI-PERIODIC WAVE IN A DOUBLE-PERIODIC PLATE	Volodymyr Bulgakov[1], Kucenko Anastasia[1], Semjons Ivanovs[2] [1]National University of Life and Environmental Sciences of Ukraine, [2]Latvia University of Life Sciences and Technologies	66	UA/LV
29	DETERMINATION OF OPERATING PARAMETERS AND THE WORK QUALITY OF ROLLER SURFACE FOR SORTING POTATOES	Wojciech Tanas University of Life Sciences in Lublin	53	PL
30	EVALUATION OF SOIL PENETRATION RESISTANCE IN REDUCE TILLAGE SYSTEM	Mariusz Szymanek Lublin University of Life Sciences, Poland	54	PL
31	DEVELOPMENT AND IMPLEMENTATION OF INDUSTRIAL DESIGN OF PNK-S DEVICE INTO PRODUCTION	Elizaveta Makasheva LLP "NPTs RT" SAPA ", Almati	48	KZ

Tuesday (26.06)	**10:00 – 19:00**	**POSTER SESSION SESSION "Uses of machines. Innovative technologies. Conserving Soils and Water."**	**CONFERENCE HALL 1**	
Wednesday(27.06)	**09:00 – 12:00**			
32	THE INTERACTION OF MILK AND WASHING SOLUTION WITH INTERNAL SURFACES OF FLOWING PARTS OF MILKING PLANTS	Ushakov Y.A., Doctor Of Technical Sciences, Professor; Shakhov V.A., Doctor Of Technical Sciences, Professor; Rotova V.A., Candidate of Technical Sciences, associate professor; Danilova N.G., Teacher-researcher; Pugacheva N.A., Graduate student Orenburg State Agrarian University	19	RU
33	THE TECHNIQUE AND RESULTS OF TESTING THE SYSTEM OF DETECTION THE SEXUAL HUNT IN DAIRY COWS BY CHANGES IN MOTION ACTIVITY	M.Sc. Grischenko A.B., Assist. prof., Dr. of Tech .Sc. Girutski I.I., Assist. prof. Senkov A.G., PhD. Belarussian State Agrarian Technical University	26	BY
34	THE ENERGY EFFICIENCY OF INTELLECTUAL MANAGEMENT OF LIQUID FEED DISTRIBUTION SYSTEM AT PIGSTY FARMS	Assist. prof., Dr. of Tech .Sc. Girutski I.I., Assist. prof. Senkov A.G., PhD. Belarussian State Agrarian Technical University	27	BY
35	USE OF INFORMATION SYSTEMS TO SUPPORT DECISION MAKING ACCORDING TO ANALYSIS MACHINES	Ing. M. Mráz., Ing. O. Urbanovičová, PhD., prof. h.c. prof. Ing. P. Findura, PhD., Ing. M. Prístavka, PhD. Slovak University of Agriculture in Nitra	38	SK
36	RESEARCH OF SURFACE-PLANE AND SPACE-DEEP INTERACTION OF NEEDLE WITH SOIL	Dr. Eng., Senior Researcher Sheichenko V.1, Ph.D., Assoc. Prof. Dudnikov I.1,. Ph.D., Senior Researcher Shevchuk V.2, Ph.D. Kuzmych A.3 1Poltava State Agrarian Academy; 2Uman National University of Horticulture; 3National Scientific Centre "Institute for Agricultural Engineering and Electrification", Hlevakha	39	UA
37	OVERVIEW OF SESAME RESEARCH IN BULGARIA	Assoc. Prof. Stoyan Ishpekov, PhD1, Assoc. Prof. Stanislav Stamatov PhD 2, 1Agricultural University -Plovdiv, 2Agricultural Academy, Institute of Plant Genetic Resources	40	BG

time for presentation 10-12 minutes,
questions after each presentation

38	IMPACT OF WATERING REGIMES ON APPLE YIELDS UNDER VARIOUS METEOROLOGICAL CONDITIONS AND MICRO IRRIGATION	Assoc. Prof. PhD R. Kireva, Prof. PhD M. Mihov Institute of Soil Science, Agricultural Technology and Plant Protection “Nikola Pushkarov", Sofia	41	BG
39	IRRIGATION REGIME OF GREEN BEAN CULTIVATED AS AN INTERCROPPING CULTURE IN UNHEATED GREENHOUSES WITH DRIP IRRIGATION	Assoc. Prof. PhD R. Kireva, Prof. PhD M. Mihov - Institute of Soil Science, Agro-Technology and Plant Protection “Nikola Pushkarov", Sofia, Bulgaria	42	BG
40	PROBLEMS OF DEVELOPMENT OF PRODUCTION AND TECHNOLOGICAL COMPONENT OF THE AGRARIAN SECTOR OF UKRAINE	Zhavoronkova G., Doctor of Economic Sciences, Professor National Aviation University, Kyiv, Melnyk L., Doctor of Economic Sciences, Associate Professor National University of horticulture, Uman, Zhavoronkov V., PhD (Economics), Associate Professor National Aviation University, Kyiv,	44	UA
41	PREREQUISITES FOR SELECTING THE SUITABLE AGRICULTURAL TECHNIQUE	Ivan Mortev, Kiril Stefanov Institute of Soil Science, Agro-Technology and Plant Protection “Nikola Pushkarov", Sofia	49	BG
42	TECHNOLOGICAL AND TECHNICAL SOLUTIONS TO THE PROBLEM OF SOIL COMPACTION AND DEPLETION IN THE SYSTEM OF PRECISION FARMING IN THE CONDITIONS OF NORTHERN KAZAKHSTAN	Acad. Sayakhat Nukeshev[1], Prof. Dr.Kairat Eskhozhin[1], Assoc. Prof. Dr.Dimitr Karaivanov[2], Assoc. Prof. Dr. Mikalai Ramaniuk[3], PhD Student Kaldybek Tleumbetov[1], PhD Student Dinara Kosatbekova[1], PhD Student Bakhitbek Saktaganov[1] 1-S. Seifullin Kazakh Agrotechnical University, 2-University of Chemical Technology and Metallurgy, Sofia 3-Belarusian State Agrarian Technical University	55	KZ BG BY
43	STUDY OF OPERATIONAL PROPERTIES OF MOTOR BIOFUELS	Ass. Prof., PhD, Iu. Melnic[1], Ass. Prof., PhD, V. Tkachuk[2], Ass. Prof., PhD, O. Rechun[2] [1] State Agrarian University of Moldova, Chisinau, Republic of Moldova [2] Lutsk National Technical University, Lutsk, Ukraine	58	MD UA
44	RESEARCH ON CHARACTERISTICS OF FAILURES FLOW ACCORDING TO THE MAINTENANCE AND REPAIR STRATEGY	Prof. PhD M. Mihov Institute of Soil Science, Agricultural Technology and Plant Protection “Nikola Pushkarov", Sofia, Bulgaria	59	BG
45	PROBLEMS OF PRODUCTION AND USE OF HYDROPONIC PRODUCTS IN AGRICULTURAL PRODUCTION	Prof. Eng. Volodymyr Bulgakov1 PhD., Eng. Yevhen Ihnatiev2 PhD. 1National University of Life and Environmental Sciences of Ukraine, 2Tavria State Agrotechnological University	60	UA

time for presentation 10-12 minutes,
questions after each presentation

46	IMPROVING TECHNOLOGY OF PASTURES AND GRASSLANDS DEVELOPMENT	PhD Student R. Kassimova[1], Prof. DSc A.Adilsheev[2],Prof.Dr.Miho Mihov[3] [1] Kazakh national agrarian university, Kazakhstan. [2] LLC «Scientific production center of agricultural engineering», Kazakhstan. [3] Institute of Soil Science "Nikola Poushkarov", Bulgaria.	63	KZ BG
47	TECHNOLOGICAL AND TECHNOLOGICAL SUPPORT AS THE MAIN FACTOR OF SUSTAINABILITY DEVELOPMENT OF AGRO-INDUSTRIAL PRODUCTION	Adamchuk V., Gritsyshyn M., Perepelytsya N. NSC "IAEE" of the NAAS of Ukraine	67	UA
48	RELATION BETWEEN THE IRRIGATION RATE AND THE YIELD OF LONG-FRUIT CUCUMBERS GROWN IN THE SOFIA FIELD	Assoc. Prof. PhD R. Kireva, Prof. PhD M. Mihov - Institute of Soil Science, Agro-Technology and Plant Protection "Nikola Pushkarov", Sofia, Bulgaria	68	BG
49	IMPACT OF WATERING REGIMES ON APPLE YIELDS UNDER VARIOUS METEOROLOGICAL CONDITIONS AND MICRO IRRIGATION.	Assoc. Prof. PhD R. Kireva, Prof. PhD M. Mihov - Institute of Soil Science, Agricultural Technology and Plant Protection "Nikola Pushkarov", Sofia, Bulgaria	69	BG
50	MODELING OF REAL RICE FIELD	Dzhamburshin A.Sh., Doctor of Technical Sciences, Professor Kungurov A.R., Ph.D. Turymbetova GD, Doctor PhD Kazakh National Agrarian University, Almaty	70	KZ
51	DEVELOPMENT OF SHEET MASS TECHNOLOGY OF FODDER GRASSES AND A DRYING UNIT USING AN AIR HELIUM HEATER	Dr. Kulshikova Elmira Kazakh National Agrarian University, Almaty	37	KZ
52	ENERGY EFFICIENCY OF DIRECT INPUT IN THE CONVENTIONAL PRODUCTION OF CORN	MSc. Jugovic, M.[1], Malicevic, Z., PhD[2] [1]University of East Sarajevo [2]University of Banja Luka	12	BH

19:30 – 24:00	**"WELCOME" COCKTAIL - The restaurant for breakfast**

28.06.2019 (WEDNESDAY)

10:00	**CLOSING OF THE CONGRES - WINE AND CHEESE PARTY**	**THE RESTAURANT OF HOTEL "ATLANTIS"**

NEXT CONGRESS "AGRICULTURAL MACHINERY 2020"
01.07-04.07.2020, BURGAS, SARAFOVO, HOTEL "ATLANTIS"

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time for presentation 10-12 minutes,
questions after each presentation

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questions after each presentation

time for presentation 10-12 minutes,
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questions after each presentation

IV INTERNATIONAL SCIENTIFIC CONFERENCE

CONSERVING SOILS AND WATER

28-31.08.2019, BURGAS, HOTEL ATLANTIS

www.conserving-soils.eu

VI INTERNATIONAL SCIENTIFIC CONFERENCE

MATERIAL SCIENCE. NONEQUILIBRIUM PHASE TRANSFORMATIONS 2019

09-12.09.2020, VARNA, HOTEL AQUA AZUR

www.material-science.eu

XVI INTERNATIONAL SCIENTIFIC CONGRESS - SUMMER SESSION

MACHINES. TECHNOLOGIES. MATERIALS 2019

11-14.09.2019, VARNA, HOTEL AQUA AZUR

www.mtmcongress.com

III INTERNATIONAL SCIENTIFIC CONFERENCE

CONFSEC 2019

09-12.12.2019, BOROVETS, HOTEL ELA

www.confsec.eu

IV INTERNATIONAL SCIENTIFIC CONFERENCE - WINTER SESSION

INDUSTRY 4.0

11-14.12.2019, BOROVETS, HOTEL ELA

www.industry-4.eu

III INTERNATIONAL SCIENTIFIC CONFERENCE

MATHEMATICAL MODELING

11-14.12.2019, BOROVETS, HOTEL ELA

www.mathmodel.eu

V INTERNATIONAL SCIENTIFIC CONFERENCE

HIGH TECHNOLOGIES. BUSINESS. SOCIETY 2020

09-12.03.2020, BOROVETS, HOTEL ELA

www.hightechsociety.eu

XIII CONFERENCE FOR YOUNG RESEARCHERS

TECHNICAL SCIENCES. INDUSTRIAL MANAGEMENT 2020

11-14.03.2020, BOROVETS, HOTEL ELA

www.youngconference.com

XVII INTERNATIONAL SCIENTIFIC CONGRESS - WINTER SESSION

MACHINES. TECHNOLOGIES. MATERIALS 2020

11-14.03.2020, BOROVETS, HOTEL ELA

www.mtmcongress.com

XXVII INTERNATIONAL SCIENTIFIC-TECHNICAL CONFERENCE

FOUNDRY 2020

08-10.04.2020, PLEVEN, HOTEL ROSTOV

www.metalcasting.eu

VIII INTERNATIONAL SCIENTIFIC CONFERENCE

ENGINEERING. TECHNOLOGIES. EDUCATION. SECURITY 2020

27.05-30.05.2020, VELIKO TARNOVO, HOTEL ASENEVTSI

www.techtos.net

Пришляк В.М.

Доповідь

Development of innovational technologies of agricultural machines projecting and their influence on the formation of professional competencies of agricultural engineer

The development of innovative technologies of designing agricultural machines and their influence on the formation of

professional competencies of agroengineer is presented. The course designing topics and stages of work implementation are highlighted, which states that during designing a review and analysis of existing structures of this type is performed, the mechanical and technological properties of agricultural materials with which the machine will work (soil, seeds, fertilizers, root crops, etc.) are determined, the agrotechnical requirements and technical requirements for the car are formed, the technological scheme of the design is substantiated and the principle of its work is described, the basic technological, kinematic, hydro or pneumatic mechanical parameters, the forces acting on the working bodies, traction resistance and power consumption are determined, calculations are made for the strength of the changed structural elements, the technical passport of the machine is drawn up, the technical and economic indicators are determined, the technological scheme is drawn up, the description is made and the formula of the invention is compiled according to the requirements of the patent documents. It is noted that the successful completion of the course work on agricultural machines involves interdisciplinary connections with other disciplines, for example, such as the mechanical and technological properties of agricultural materials, the basis of engineering methods for

calculation of strength and rigidity, machine parts and design principles, agriculture, the basis intellectual property, the basis of scientific research, etc. An example of an approximate algorithm for calculating and designing an agricultural machine on the example of a grain seed drill is given. The factors emphasizing the

quality of preparation of agroengineering specialists, development of capabilities for performing design functions are highlighted.

The educational discipline "Agricultural Machines" [1] is the basic in the structural-logical scheme of training specialists in specialty 208 − "Agroengineering". Students learning the structure and principle of the operation of agricultural machines, adjust the optimal operating modes, the theoretical foundations of the technological processes of the working bodies, the method of designing and designing new and improving the existing structures, learning the discipline.

Total volume of educational discipline "Agricultural machines. Fundamentals of theory and calculation " is 162 hours, of which 108 hours. assigned to classroom work, and 54 − for selfstudy. In recent years, changing the number of hours in this discipline tends to reduce the number of class hours, while the time for self-employment is increasing.

Independent work consists in studying software material in the laboratory of the estimated course of agricultural machines, on the site of storage of equipment, in libraries, at the branches of the department.

For the purpose of rational use of time and the elimination of duplication of certain types of tasks, the designer develops and at the beginning of studying the discipline gives the student a plan for the implementation of course work. Professor Bendera I.M. payed special attention to the project activity in the framework of independent work of students of agroengineering specialties in his scientific works. [3]. He believed that a successful project activity greatly increased the requirements for coursework and diploma theses or projects, needs a lot of professional commitment and the ability to develop educational science and technology projects.

Successful implementation of the course work on agricultural machines involves interdisciplinary connections with other disciplines, for example, such as the mechanical and technological properties of agricultural materials, the basis of engineering methods for calculating strength and rigidity, machine parts and design

basics, agriculture, the fundamentals of intellectual property, the basis of scientific research, etc. During the issuance of individual tasks for course design, account is taken of the agronomic requirements, the technical characteristics of the machines, the economic activity of the particular enterprise, the practical direction of the project activity of the future agroengineer.

SCIENTIFIC AND TECHNICAL UNION OF MECHANICAL ENGINEERING BULGARIA

AWARDS

A

DIPLOMA

FOR THE PARTICIPATION IN THE

VII INTERNATIONAL SCIENTIFIC CONGRESS

AGRICULTURAL MACHINERY 2019

TO

Candidate of Tech. Sc., Assoc. Prof.

Pryshliak V.

FOR THE REPORT

DEVELOPMENT OF INNOVATIONAL TECHNOLOGIES OF AGRICULTURAL MACHINES PROJECTING AND THEIR INFLUENCE ON THE FORMATION OF PROFESSIONAL COMPETENCIES OF AGRICULTURAL ENGINEER

Prof. D.SC. Eng. Georgi Popov
Chairman of the
Scientific-Technical Union of Mechanical Engineering

Burgas

26 - 29.06.2019