

International Competition of Student Scientific Works “Black Sea Science 2022”

Results for the field of “Power Engineering and Energy Efficiency”

Place	Country	Institution	Work Title	Author(s)	Supervisor(s)	Score
I	Germany	Technische Universität Berlin	Helium Production from Natural Gas and Market Analysis	Sebastian Serra Leal	Jimena Incer Valverde	98
I	Ukraine	National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”	Influence of heating and ventilation modes on the energy consumption of university educational buildings under quarantine conditions in Ukraine	Boiko Tetiana	Bilous Inna, Deshko Valerii	96
II	Ukraine	Sumy State University	Energy efficient circuit solutions for low-temperature refrigeration machines based on environmentally friendly refrigerants	Pylypenko Daniil	Kozin Viktor	90
II	Ukraine India	National University of Life and Environmental Sciences of Ukraine CVR Hyderabad College of Engineering	Development of energy-efficient vibration plant for drying sunflower seeds based on infrared radiation	Nadkrenychnyi Ivan	Bandura Valentyna, Gundebommu Sree	87
II	Ukraine	Mykolayiv National Agrarian University	Development of the automated electric drive of the mineral fertilizer loader with development of the control system	Musienko Artem, Bartholomew Ivan	Sadovoy Aleksey	86
III	Ukraine	Odessa State Academy of Civil Engineering and Architecture Odessa National Academy of Food Technologies	Analytical study of the thermal conductivity processes at ceramic sintering	Grechanovskaya Marina	Heorhiiesh Kateryna, Volgusheva Natalya	85
III	Poland	West Pomeranian University of Technology	Energy efficiency of refrigerated containers transport on container vessels	Wojnicz Laura Milek Dawid Grzelak Pawel	Filina-Dawidowicz Ludmila	83
III	Ukraine	National Technical University "Kharkiv Polytechnic Institute"	Technical comparison of infrared heaters of long-wave range	Rybakova Hanna, Syrovatskyi	Ivakhnov Andrii, Bulhakov Olexii	83

				Maksym, Pavlenko Denys		
III	Ukraine	Kherson Educational-Scientific Institute of Admiral Makarov National University of Shipbuilding	Efficiency Improving of Marine Engines by Using a Contact Cooling System with a Thermopressor	Sydorenko Dmytro Nadtochii Illia	Kobalava Halina, Konovalov Dmytro	82
III	Poland	Kielce University of Technology	Increasing the environmental safety of thermal power plants by coal fly ash utilization	Zegarek Marta	Koshlak Hanna	80
III	Kazakhstan	Almaty Technological University	Improvement of the refrigeration system with radiative cooling and combined condensation	Aleshchenko Mikhail	Tsoy Alexander	80
	Ukraine	Zaporizhzhia Polytechnic National University	Investigation of thermal work of open-hearth furnaces at change of a expense of regenerative air and time of overturning of valves	Petrik Bogdan	Nazarenko Iryna	78
	Ukraine	Lviv Polytechnic National University	Improving the efficiency of converting energy from electric current into energy pulses of other species in loads with active resistance	Bratiuk Pavlo	Ozirkovskyi Leonid	77
	Ukraine	Mykolayiv National Agrarian University	Improvement of asynchronous motor with external rotor for drive of industrial and special ventilation installations	Hnatiuk Andrii	Sadovoy Aleksey	77
	Ukraine	Odessa State Academy of Civil Engineering and Architecture	Sunny energy is response to the climate crisis	Dolga Anna	Oliinyk Tatiana	76
	Ukraine	Lutsk National Technical University	Investigation of heat balance of light-transparent structures	Fedosonkov Illia	Pakholiuk Orest	75
	Ukraine	Vinnytsia National Agrarian University	Prospects of development of energy cooperation in rural areas	Pronko Anastasia	Gontaruk Yaroslav	74
	Ukraine	Lviv Polytechnic National University	Research into obtaining of an alternate solid fuel from grain alcohol distillery stillage	Chyzhovych Roman, Kiiiaieva Sofiia, Zherebetskyi Roman	Ivashchuk Oleksandr	74
	Ukraine	Odessa State Agrarian University	Production of biodiesel fuel	Rakhtopol	Uminsky Sergey,	72

				Alexander, Zadachin Maxim	Dudarev Igor	
	Kazakhstan	Almaty Technological University	Application of solar energy and radiative cooling for refrigeration systems	Veselskiy Nikita	Tsoy Alexander	71
	Ukraine	Mechanical and technological specialized college of Odessa National Academy of Food Technologies	Development of energy saving measures to minimize electricity losses in electrical networks using artificial neural networks	Kalenyk Artem	Bakulevskiy Volodimir	70
	Poland	Kielce University of Technology	Mathematical model of the swelling process to predict the change in pore size over time	Wojciech Wiekiera		70
	Ukraine	Odessa Polytechnic National University Odessa National Academy of Food Technologies	The perspectives of zeolites application for heat accumulators	Hrechanovskyi Andrii	Volgusheva Natalya	69
	Ukraine	Mechanical and Technological Professional College Odessa National Academy of Food Technologies	Energy efficient drum dryer project	Aristov Maxim	Yarovyi Igor	69
	Ukraine	Vinnitsia National Agrarian University	Development of systems for monitoring the technical condition and diagnosing hydro units	Bilinskiy Bohdan	Hraniak Valeriy	68
	Ukraine	National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”	Passive thermography as a control method for led soldered joints	Mamchur Yaryna	Ivanova Vita	66
	Ukraine	State Biotechnological University	Substantiation of the limits of costs for the implementation of combined with renewable energy supply systems	Slavov Maxim	Dudnikov Serhii	65
	Kazakhstan	Almaty Technological University	Systems with radiation cooling and natural circulation of the refrigerating agent	Minaev Alexander	Tsoy Alexander	64
	Ukraine	Mykolayiv National Agrarian University	Development of noria electric drive control system for grain transport	Hordiienko Oleksandr, Muha Oleksandr	Koshkin Dmytro	64

	Ukraine	Odessa National Academy of Food Technologies	Research on the choice of environmentally friendly alternatives to traditional refrigerants for use in refrigeration equipment and air conditioning systems	Boretskyi Yurii	Zhykharieva Nataliia	62
	Ukraine	Odessa National Academy of Food Technologies	Improving the energy efficiency of central air conditioning systems using contact heat exchangers	Ostapenko Denys, Afanasenko Viacheslav	Kogut Volodymyr	62
	Ukraine	Odessa National Academy of Food Technologies	Development of a circuit-cycle solution for the unit of extraction of vegetable raw materials using liquefied carbon dioxide	Borodynska Olha	Sokolovska-Yefimenko Viktoriia	62
	Ukraine	Odessa National Academy of Food Technologies	Development of absorption water-ammonia refrigeration machine to work with systems getting the water from the air	Kravchenko Volodymyr		61
	Moldova	Technical University of Moldova	Estimation of the energy potential of secondary wine and agro-food wastes	Branza Vlad		61
	Ukraine	National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”	Prospects and realities of the application of heat pipes with effective capillary structures	Tsekhmeistruk Eliza		60
	Ukraine	National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”	On the influence of porosity and thermal conductivity of capillary structures of heat pipes with their different orientation	Mosiychuk Oksana		60
	Ukraine	Odessa National Academy of Food Technologies	Studies of ice formation in flooded ice machines	Sviashchuk Vladislav, Goriachenko Roman	Zhykharieva Nataliia	60
	Ukraine	Odessa Polytechnic National University	Environmental friendliness of thermal and nuclear power plants	Myronenko Oleksii		60
	Ukraine	Odessa National Academy of Food Technologies	Assessment of the energy prospects for pre-cooling natural gas before compression by utilizing the heat of the exhaust combustion products on the main gas	Sahatyr Artur		59

			pipelines			
	Ukraine	Odessa National Academy of Food Technologies	Modeling of thermal modes of the reflux condenser of the absorption refrigeration unit	Vlasov Oleksandr		59
	USA	San Francisco State University	Research and development of refrigeration system for natural working fluid trading enterprises	Darlington Bornstein		57
	USA	Wayne State University	Research and development of cooling heating and hot water supply system based on ground heat pump	Aurelio Gomez Kamina		55
			Substantiation of the design of the underwater scraper-suction machine	Sheyko Oleksandr		55