

## International Competition of Student Scientific Works “Black Sea Science 2020”

### Results for the field of “Information Technologies, Automation and Robotics”

Place	Country	Institution	Work Title	Author(s)	Supervisor(s)	Score
I	Ukraine	Dnipro National University of Rail Transport named after V. Lazaryan	Research on the possibility of the bee colony algorithm for determining the topology of the wireless network at the marshalling yard	Diana Nazarova	Victoria Pakhomova	96,00
I	Ukraine	Donetsk National University named after Vasyl Stus	Intelligent urban traffic	Anastacia Pidgurska	Peter Nikolyuk	94,00
II	Ukraine	Kharkiv National Automobile and Highway University	Measuring system to monitor deformation of large size structure members	Maksym Zakharchenko	Andrii Levterov	92,00
II	Ukraine	Petro Mohyla Black Sea National University	Hardware-Software Complex to Restore Finger Movement Coordination and Color Perception	Mykola Hnezdilov, Volodymyr Polianichkin, Vladyslav Shurbin	Iryna Zhuravska, Yevhen Davydenko	91,67
II	Ukraine	Vinnitsia National Technical University	Method and model for a highly realistic rendering of a three-dimensional image	Mykola Nechyporuk	Olexander Romanyuk	90,67
II	Ukraine	Odessa National Academy of Food Technologies	SEO - educational site analysis	Kostyantyn Morozovskiy	Iryna Kononovich	90,50
III	Belarus	Belarusian National Technical University	Adaptive mobile application for the CATS learning system	Ilya Lehchylin	Yuliya Papova	90,33
III	Poland	Lodz University of Technology	Measurements from hive prevents the extinction of bees based on IOT technology	Sebastian Górecki, Arkadiusz Mączkowski, Konrad Koperek	-	90,25
III	Ukraine	Admiral Makarov National University of Shipbuilding	Remote temperature and humidity measurement system	Veronika Maraieva, Oleksandr Mykheliev	Sergii Bozhatkin, Igor Horovyi	90,00
III	Ukraine	Odessa Technical College of Odessa National Academy of Food Technologies	Information model of the application of a helliosystem for the needs of student dormitory in the Black Sea region	Volodymyr Sliusarenko, Vitalii Stoliarov	Liliia Ivanova	89,67

<b>III</b>	Ukraine	Odessa National Academy of Food Technologies	Victory Manipulator Universal Robots in the line sorting of finished products of the wine industry	Igor Kotsur	Volodymyr Honhalo	<b>88,33</b>
<b>III</b>	Ukraine	Kyiv International University	Usage of modern information technologies of solving the optimal allocation problem investments in the enterprise	Anna Ignatenko	Leonid Scherbak	<b>88,25</b>
	Ukraine	Kharkiv National Air Force University "Chief Marshal of Aviation Ivan Kozhedub"	Method of increasing the hidden channel band capacity for information processing technologies and transmission of video information resources	Viktoriia Dymchuk	Volodymyr Barannyk	<b>87,50</b>
	Ukraine	Cherkasy State Technological University	Autonomous Soil Moisture Measurement System with Wireless Data Transmission	Daniil Smirnov	Volodymyr Palahin	<b>86,50</b>
	Ukraine	Zaporizhzhia Polytechnic National University	Automatic control system for two-mass position electric drive	Mykola Olieinikov	Volodymyr Osadchy, Olena Nazarova	<b>83,67</b>
	Ukraine	College of Industrial Automation and Information Technology of Odessa National Academy of Food Technologies	Research and improvement of 3D printing with abs plastic using FDM technology	Daniil Kotlyk	Iryna Muntian	<b>82,67</b>
	Ukraine	Donbass State Engineering Academy	Information system for working with education programs and higher education standards	Kateryna Didevych	Oleksandr Melnykov	<b>82,00</b>
	Ukraine	Kryvyi Rih National University	Development of mobile apparatus and measuring complex for wastewater composition control	Ivan Bohatskyi	Nonna Shapovalova	<b>81,33</b>
	Ukraine	Kharkiv Institute of Trade and Economics of Kyiv National University of Trade and Economics	3D-modeling of the interior of the rooms by cloud technologies	Olena Tsybulnyk	Svitlana Berezenska	<b>81,00</b>
	Ukraine	Odessa National Academy of Food Technologies	Development of a monitoring system seysmoaktyvnosti construction works	Andrii Tsobenko	Denis Popkov	<b>81,00</b>
	Ukraine	National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Intelligent agent of access management and control system	Denys Vysoven	Artem Kovalchuk	<b>80,50</b>

	Ukraine	Odessa National Polytechnic University	Development of a prototype of an active traction prosthesis	Nataliia Panha	Yevgen Mykhaylov, Oleksandr Kniukh	<b>80,50</b>
	Ukraine	Sumy State Pedagogical University named after AS Makarenko	Use of information technologies in the professional activity of future social workers	Tetiana Kobzar	Olena Korol, Zhanna Chernyakova	<b>79,50</b>
	Ukraine	College of Industrial Automation and Information Technology Odessa National Academy of Food Technologies	Implementation of robotics for oceans and seas cleaning	Anna Perederii	Iryna Muntian	<b>79,50</b>
	Ukraine	Kharkiv National Air Force University "Chief Marshal of Aviation Ivan Kozhedub"	Improvement of the method of improving the information security of the information and telecommunication system	Yana Kmetiuk	Volodymyr Barannyk	<b>78,00</b>
	Ukraine	Simon Kuznets Kharkiv National University of Economics Municipal Establishment "Kharkiv Humanitarian-Pedagogical Academy" of the Kharkiv Regional Council	Creation of information technologies by the multimedia training complex for teaching students of the 5th grades of the basics of algorithmization and programming	Anastasiia Khmil, Kateryna Prytkova	Iryna Khoroshevska, Iryna Morkvian	<b>78,00</b>
	Ukraine	National Technical University "Kharkiv Polytechnic Institute"	Assessment of the fuzzy state of complex systems	Artem Yakovenko	Olexander Goloskokov	<b>76,50</b>
	Ukraine	Donbass State Engineering Academy	An application for demonstrating and comparing sorting and retrieval algorithms	Oleksandr Sokolskyi	Oleksandr Melnykov	<b>76,00</b>
	Ukraine	Admiral Makarov National University of Shipbuilding	Employees notification systems in the event of emergency situations through public wireless access points	Oleksii Patlaichuk, Hlib Serbulov	Sergii Bozhatkin, Victoryia Guseva-Bozhatkina	<b>76,00</b>
	Ukraine	Mariupol State University	Automated emergency call system based on sound incident recognition	Ruslan Kakatsiy, Valerii Stadnichuk, Kristina Tytarenko	Sergiy Krivenko	<b>75,00</b>
	Georgia	Sokhumi State University	One search engine built on a given database with JSON	Tchanturia Salome, Anjafaridze Besarion, Todria Ucha	Kereselidze Nugzar	<b>73,50</b>

	Ukraine	Odessa National Academy of Food Technologies	System for storing and analyzing data of the water heaters plant	Kyryl Nebyvailov	Helen Bodul	<b>73,00</b>
	Kazakhstan	Turan University	Using VR and AR technologies in inclusive education for children with disabilities	Mukhamedali Kusainov	Ekaterina Kim	<b>72,00</b>
	Ukraine	Vinnitsia Institute of Trade and Economics of Kyiv National University of Trade and Economics	Modelling of threats of economy digitalization	Sergi Rudyk	Iryna Nikolina	<b>72,00</b>
	Ukraine	Kyiv National Economic University named after Vadym Hetman	Status and Prospects for the Use of Information and Communication Technology in Germany	Yevheniia Norenko	Liudmyla Dybkova	<b>71,50</b>
	Ukraine	Odessa National Academy of Food Technologies	Information entropy and freedom of choice	Maksym Rohach, Mariia Boitsova, Nadiia Bondar	Valeriy Shvets	<b>71,00</b>
	Ukraine	National Technical University "Kharkiv Polytechnic Institute"	The algorithm of information security risk assessment based on fuzzy-multiple approach	Nataliia Romashchenko	Olexander Shmatko	<b>71,00</b>
	Ukraine	Petro Mohyla Black Sea National University	Heat Loss Monitoring of Multi-Story Buildings using Multi-Agent Approach	Iryna Simakova	Ivan Burlachenko	<b>70,50</b>
	China	Zhejiang University Ningbo Institute of Technology	Dynamic Scheduling Strategy of Intelligent RGV	Kong Weikang	-	<b>69,50</b>
	Ukraine	College of Industrial Automation and Information Technology Odessa National Academy of Food Technologies	Analysis of relevance of development of information resource of workflow planning for business administrators	Dmytro Balaban	Tatiana Kostirenko	<b>69,00</b>
	Ukraine	Donbass State Engineering Academy	The development of the tool for real-time notifying the people about level of air pollution in recreation zones	Aleksandr Marchuk, Yaroslav Davydov	Iryna Getman, Ihor Staskevych	<b>69,00</b>
	Ukraine	National Technical University "Kharkiv Polytechnic Institute"	Development of models and software solution for the problem of diagnostic of financial states of it-enterprise	Dariia Tkachenko	Oleksandr Goloskokov	<b>68,00</b>
	Ukraine	National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Robotic Platform for Smart Surveillance and Management	Vladyslav Holets	Artem Kovalchuk	<b>62,00</b>

	Ukraine	Odessa National Academy of Food Technologies	Latch automatic control system for monitoring the dosing of bulk substances	Mykhailo Halitovskyi	Volodymyr Honhalo	<b>61,00</b>
	Ukraine	Odessa National Academy of Food Technologies	Automation of process control for positioning piston actuators	Dmytro Makletsky	Volodymyr Honhalo	<b>57,67</b>
	Ukraine	National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Monitoring and controlling agent of Microgrid cluster	Tetiana Pyrohovska	Artem Kovalchuk	<b>57,00</b>
	Ukraine	V. N. Karazin Kharkiv National University	The use of supervised learning in robotics	Sophia Serdyuk	Maryna Malakhova	<b>52,00</b>
	Ukraine	Pavlo Tychyna Uman State Pedagogical University	Robotic search system for people	Dmitry Derman, Anna Derman, Sergiy Tereshchuk	Sergiy Tereshchuk	<b>49,50</b>