

International Competition of Student Scientific Works “Black Sea Science 2023”

1st stage results for the field of “Information Technologies, Automation and Robotics”

Country	Institution	Work Title	Author(s)	Supervisor(s)	Score
Ukraine	Lutsk National Technical University	Qr and 3d technologies integration in children’s safety projects	Natalia Pys, Elina Prychodko	Iurii Lukianchuk, Olena Surynovych	96,5
Lithuania	Vytautas Magnus University	Lithuanian hate speech classification using deep learning methods	Kankeviciute Egle, Milita Songailaitė, Bohdan Zhyhun	Justina Mandravickaitė	95,0
Ukraine	National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, National University of "Kyiv-Mohyla Academy"	Machine learning models and technology for classification of forest on satellite data	Yevhenii Salii, Anton Hohol, Volodymyr Kuzin	Hanna Yailymova, Nataliia Kussul	95,0
Ukraine	Kharkiv National University of Radio Electronics	Development complex of laboratory Works for research digital television and mobile communication systems based on sdr technology	Illia Bondarenko, Oleksii Dushenkov	Valerii Loshakov	94,5
Ukraine	National University of Food Technologies	Research of mechatronic gripper devices on the basis of bionics with extended functional capabilities	Yakymchuk Yurii, Danyuk Dmitry	Iakymchuk Mykola	94,0
Ukraine	Vinnytsia National Technical University	Development of means for high productive rendering	Yevgen Stanislavenko	Oksana Romaniuk	94,0
Ukraine	Ivan Kozhedub Kharkiv National Air Force University	Analysis of color noise effect on quality of recovering the chaotic signals	Stoliar Oleksandr	Vasiuta Konstantyn	93,5
Ukraine	State University "Zhytomyr Polytechnic"	An intelligent platform for conducting ecological surveys of water bodies	Mykyta Nieviedrov	Mariia Hrynevych	93,5
Ukraine	Lviv Polytechnic National University	Method of increasing efficiency, mean of control and tool of analysis of the use energy of power source Pulse laser range finder	Pavlo Bratiuk	Leonid Ozirkovskyi	92,5

Ukraine	Petro Mohyla Black Sea National University	Development of an iot device based on a geiger counter	Serhii Ovchar, Vladyslav Mohyla	Borys Saltovskyy, Serhii Puzyrov	92,0
Ukraine	Kharkiv National University of Radio Electronics	Organization of a back-up channel of communication in a location with no cellular communication infrastructure	Savenko Stepan	Yurii Lykov	91,0
Ukraine	National Academy of National Guard of Ukraine	Development of a method for calculation of the electromagnetic compatibility region of a radio masking source	Shreider Yuliia	Novykova Olena	90,5
Ukraine	Separated structural subdivision "Odesa Technical Professional College of Odesa National University of Technology"	Hot spot network for points of invincibility	Krupchynskyy Oleksyi, Serbov Maksym	Krasniienko Nataliia, Sulima Yuliia	90,0
Ukraine	Lutsk National Technical University	Human-computer interaction based on arduino	Yakiv Kurinnyi	Pavlo Savaryn, Olha Redko	89,5
Ukraine	National Technical University Kharkiv Polytechnic Institute	License plate recognition system based on mask r-cnn	Onishchenko Daniil	Nataliia Liubchenko, Andrii Podorozhniak	89,0
Ukraine	Odesa State Agrarian University	Intelligent technologies of assessment and modeling of the development of agricultural crops using streaming data processing of satellite imagery	Dmytro Buts	Oleksandr Fomin Oleksii Diachenko	89,0
Ukraine	Vinnitsia Mykhailo Kotsiubynskyy State Pedagogical University	Creating a "Smart" computer science classroom at a university	Rozputnia Bohdan	Umanetz Volodymyr, Shevchenko Liudmyla	89,0
Ukraine	Kharkiv Kojedub National University of Air Forces	Development of equipment for the formalization of the process of selecting information features for displaying information about the air situation	Sheyanov Volodimir	Shylo Serhii	88,5
Ukraine	National University of Food Technology	Quantification of a mechatronic pneumatic gripping system for a multi-link robot manipulator	Yemelianov Dmytro, Shevchenko Serhii	Liudmyla Kryvoplias-Volodina	88,5
Ukraine	Odesa Technical Professional College of Odesa National University of Technology	Optimizing the trajectory of the quadcopter using built-in sensors	Zihura Tamila	Kryvchenko Anastasiia, Tomachenko Oleksandr	88,0

Ukraine	Khmelnyskyi National University	Gesture recognition using a neural network in real time	Anhelina Bohdanova	Oleksandr Mazurets Olena Sobko	88,0
Ukraine	Donbas State Machine-Building Academy	Determining whether a sentence belongs to a specific language using the method of artificial neural networks	Viacheslav Mykhailov	Oleksandr Melnykov	88,0
Ukraine	State Biotechnological University	Determination of intervals of discretization of time series of measurements of technological process parameters in ask tp	Chychkan Alina, Tkachenko Karyna	Abramenko Ivan	87,5
Oman	University of Technology and Applied Sciences-Salalah	IoT based Smart University and Student Safety System	Fatima Naif Al Aamri, Shouq Amur Al Mashani, Malak Sami Hadid Al Aamri	Venkateswaran Radhakrishnan	87,3
Ukraine	Donetsk National Technical University	Automatic wagon loading control system using industry 4.0 technologies	Danylo Mashyanov, Oleksii Korshikov, Oleg Tkachenko	Hanna Telychko Glib Stupak	87,0
Ukraine	Petro Mohyla Black Sea National University	Algorithm and software implementation of models for program code comparison on the example of c-like programming languages	Roman Koshovyi	Kateryna Kirei	87,0
Ukraine	National Aerospace University named after M.E. Zhukovsky "Kharkiv Aviation Institute"	Study of the optimal strategy for testing complex ml models and ai applications using the mlops concept	Zmiivskyi Volodymyr	Kuznetsova Yuliia	87,0
Ukraine	Odesa National University of Technology	Development of an information and technical system for the exchange of medical data within a medical institution	Titor Ihor	Svetlana Sakharova	86,7
Ukraine	State University of Biotechnology, Kharkiv	Application of fuzzy logic for automated fault-finding in the power supply network	Oleksandr Maksimenko, Maria Levchenko	Serhiy Tymchuk	86,5
Ukraine	Odesa National University of Technology	Efficient automatic control of the energy-saving process of dealcoholization of wine in the flow in a thermoelectric heat pump installation	Pashkov Serhii	Dmytro Kovalchuk	86,3

Ukraine	Odesa National University of Technology	Improvement of photogrammetry technology for creating 3D computer models	Daniil Kotlyk	Svetlana Sakharova	86,0
Ukraine	Lutsk National Technical Univeresity	Daily prom Software	Ivan Bereza, Solomiia Povstiana	Olena Surynovych, Yuliia Povstiana	85,5
Ukraine	Donbas State Engineering Academy	Modeling the level of satisfaction of the needs of the population during the supply of drinking water to residents of small towns in extreme cases	Olexii Zakabula	Oleksandr Melnykov	84,5
Ukraine	Vinnytsia National Agrarian University	Creation of web application for automation of crisis state diagnostics using javascript object-oriented prototype programming language	Baklazenko Stanislav	Koliadenko Svitlana	84,5
Ukraine	National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Towards effective strategies for mobile robot using reinforcement learning and graph algorithms	Sofiia Shaposhnikova, Dmytro Omelian		84,3
Ukraine	“Academician Stepan Demianchuk International University of Economics and Humanities” Rivne	Interactive learning platform with gamification elements	Danylo Orlovskyy	Valentyna Yuskovych-Zhukovska	84,0
Ukraine	National Technical University “Kharkiv Polytechnic Institute”	The algorithm for comprehensibility evaluation of business process models using natural language processing	Vadym Sheveliev	Andrii Kopp	84,0
Ukraine	National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute»	Simple blockchain-based e-vote application	Fedorko Andrii, Shevchuk Petro, Lashyn Lev	Yalanetskyi Valerii	84,0
Ukraine	Ivan Kozhedub Kharkiv National Air Force University	Development of a digital synthesizer of the exciter signals of the radar transmitter	Oleh Denysenko	Oleksandr Dzihora	83,5
Ukraine	Military Institute of Telecommunications and Information Technologies named after the Heroes of Kruty	Fuzzy cyber attack detection subsystem based on metamorphic component determination	Turchak Olga	Fesokha Vitalii	83,5
Ukraine	Academician Stepan Demianchuk International University of Economics	Application of the method of gradual formation of the set of target function values for	Mushyn Mariia	Alexander Shportko	83,5

	and Humanities	programming the solving of combinatorial optimization problems			
Ukraine	Cherkasy state technological university	Development of a new type of the unit for precise output of liquid fertilizers in the agricultural sphere	Bacherikov Dmytro	Sergiy Filimonov	83,3
Ukraine	National University "Yuri Kondratyuk Poltava Polytechnic"	Specifics of implementation of the asymmetric encryption algorithm on elliptic curves	Maksym Kalynovych	Gennady Golovko	83,0
Ukraine	National Technical University «Kharkiv Polytechnic Institute»	Research of software methods and algorithms for the development of an application of the navigation system of the ntu "kphi" campus	Heorhii Hrianyk, Leonid Kosmin, Yelizaveta Bondarenko	Olena Chernykh, Oleksandr Zakovorotniy	83,0
Ukraine	Institute of Special Communications and Information Protection of National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Algorithm of using the osint technology in modern services	Yehor Bukatyi, Danylo Bukatyi, Nazar Zhovtiak	Anton Storchak	82,0
Ukraine	Separated Structural Subdivision «Odesa Technical Professional College of Odesa National University of Technology»	Research of the influence of the site color scheme on user attraction	Anastasia Shmadyuk, Ilya Khabibulin	Dzhabrailov Dmytro	81,5
Ukraine	Petro Mohyla Black Sea National University	Automated navigation for unmanned ground vehicles in logistics	Oleksandra Danylova, Olha Horishna, Maksym Kerekesler	Ivan Burlachenko, Volodymyr Savinov	81,5
Ukraine	Prydniprovsk State Academy of Civil Engineering and Architecture	Influence of individual sources of noise on the psycho-emotional state of a person during war	Mariia Leonova, Kateryna Chernenko	Petro Sankov, Nataliia Tkach	81,5
Ukraine	Kozhedub Kharkiv National Air Force University	Improved information model for assessing the meteorological situation at the command posts of the air forces	Iryna Honcharenko	Iryna Zakharchenko	81,0
Ukraine	National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Study of the efficiency of machine learning algorithms for traffic classification in mobile networks	Sushko Oleksandra	Astrakhansev Andrii	80,5
Ukraine	National Technical University "Kharkiv Polytechnic Institute"	Fido2: the brand new standard for secure authentication	Volkov Dmytro	Serhii Zevseiev	80,5

Ukraine	Vasyl Stus Donetsk National University	Characteristics of the technical task for the development of a chat-bot	Veronika Neliubii	Halyna Lukash	80,0
Ukraine	Institute of Special Communication and Information Protection, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	The state of standardization of post-quantum Crypto-algorithms at the global level	Oleksandra Tsentseria, Kateryna Hleha	Aleksandra Matiyko, Igor Samoilo	80,0
Ukraine	Yuriy Fedkovych Chernivtsi National University	Application for auto-identification of dishes, generation recipes, and shopping list based on convolutional neural network	Ivan Derda	Valentyna Dvorzhak, Maria Talakh	79,5
Ukraine	Petro Mohyla Black Sea National University	Hardware and software complex for monitoring terrorist activity	Hridniev Anton, Shkromyda Vitalii	Starchenko Viacheslav	79,5
Ukraine	Lutsk National Technical University	C# program for calculating a taper connection	Batiuk Demian, Nazarii Hrybok	Nataliia Huliieva	79,5
Bulgaria	Trakia University	Moodle manual upgrade methodology	Atanasov Svetoslav	Veselinka Nedeva	78,5
Ukraine	State university of trade and economic	Application UNxiety	Amalia Tytenko, Daria Skrypnik, Yelyzaveta Borodavko	Olga Salimon	78,5
Ukraine	Odesa National University of Technology	Creation of an algorithm for constructing a route around the field with a stone removal machine	Andrii Moshko	Alfiia Antonova	78,0
Ukraine	Yuriy Fedkovych Chernivtsi National University	Social network for creating and searching tourist routes, attractions, and organizing events	Slobodian Oleksandr, Skibinskyi Denys	Kovalchuk Myroslav, Dvorzhak Valentyna	78,0
Ukraine	National Technical University "Kharkiv Polytechnic Institute"	Statistical synthesis of Decision making algorithms in diagnosis of Mechanically unstable atherosclerotic plaque	Matsalak Viktoriia, Matsalak Valeriia	Statkus Andrii	78,0
Ukraine	Kharkiv National University of the Air Force named after Ivan Kozhedub	Satellite navigation in the aspect of countering electronic warfare complexes	Anastasia Viter	Oleksandr Khizhnyuk	77,5
Ukraine	Odesa National University of Technology	Mathematical modeling of the valve electrical drive of a collaborative robot arm in the matlab-simulink r2022 package	Maxim Isaev	Vladyslav Babich	77,5
Ukraine	Khmelnyskyi National University	Method of assessing the compliance of vessel	Borovyk Dmytro	Barmak Oleksandr	77,0

		routes to the reference route			
Ukraine	Kamianets-Podilskyi Ivan Ohienko National University	Research of sorting algorithms in different types arrays	Sukmaniuk Valeriia	Pylypiuk Tetiana	77,0
Ukraine	Ivan Kozhedub Kharkiv National Air Force University	Development of proposals for video stream processing with the tools of artificial intelligence in order to detection and tracking of small aerial objects	Angelina Vivtash, Victoria Sydorenko	Valerii Voinov	76,5
India	Bangalore Institute of Technology	FPGA - Based Real Time Embedded vision system for autonomous Mobile Robots	Sorore Benabid, Loic Latour, Mohamed Jaafar	Sandarsh Gowda M M	76,5
Ukraine	The Ivan Kozhedub National Air Force University	Universal test platform for experimental research of navigation systems of unmanned aerial vehicle and cruise missiles	Stashchak Oleksandr	Krykhtin Yurii	76,5
Ukraine	Lviv Polytechnic National University	Features of development and analysis of rest systems	Bohdan Marii	Ivan Zholubak	76,5
Ukraine	Odesa State Agrarian University	Wind energy potential of izmailskyi Odesa region of Ukraine	Vyacheslav Chuchui	Valery Chuchui	76,5
Ukraine	Kharkiv National Air Force University of Ivan Kozhedub	Method of automating the process of detection of aerial reconnaissance objects to increase the efficiency of deciphering aerial photographs	Andrii Bielivtsov, Dmitry Bova	Ivan Tupitsya, Sergii Kibitkin	76,0
Ukraine	National Technical University "Kharkiv Polytechnic Institute"	Automation of the teachers' individual extracts from the study load plan preparation processes of higher education institution department	Korkhovyi Dmytro	Dvukhhlavov Dmytro, Dvukhhlavova Alona	76,0
Ukraine	Sumy State University	Software tool for creating fake web servers	Dmytro Kikhtenko	Tetiana Lavryk	76,0
Ukraine	National University Yuri Kondratyuk Poltava Polytechni	The process of developing classification models for evaluating the efficiency of a photoelectric installation with energy storage	Phillines Irimisose	Laktionov Oleksandr, Tretiak Andriy	75,7
Ukraine	Kharkiv National Air Force University	The method and algorithm for finding a quasi-optimal plan of target allocation for air defence assets	Kirilo Voroshilov	Stanislav Piskunov	75,0

Ukraine	Donetsk National Technical University	Construction of control systems of flow parametres of the smart conveyor using a neural network 2023	Sysenko Yevhenii	Hanna Telychko	74,0
Ukraine	Kharkiv Air Force national university named by Ivan Kozhedub	Study of knowledge formalization process, regarding the recognition of the intention of the air enemy actions for the software improvement in the automated system of the special purpose of the Air Force	Sorozhkin Andrew, Zenova Yelyzaveta	Korolyuk Natalia, Khmelevskiy Serhii	73,5
Ukraine	Odesa National University of Technology	Effective automatic control of the energy-saving process of cooking and smoking sausage in the chamber with thermoelectric heat pump	Dmytro Petrenko	Dmytro Kovalchuk	73,5
Georgia	Iakob Gogebashvili Telavi State University	Surveillance and Security Models Based on the Arduino UNO Interface	Sivsivadze Guram, Mate Chidrashvili, Luka Khechoshvili	Mariam Zakariashvili	73,0
Ukraine	Dniprovsky State Technical University	Improvement of the software information-modeling system for forecasting thermal mode of the top converter lance	Mykyta Kuvaiev	Oleg Zhulkovskyi	73,0
Ukraine	Zaporizhzhia Polytechnic National University	Research of the microprocessor liquid level automatic control system	Rudim Bohdan, Kupchenko Oleksandr	Osadchyy Volodymyr, Nazarova Olena	72,5
Ukraine	State Biotechnological University	Study of the influence of electromagnetic radiation of darsonvalization and amplipulse devices on the human organism	Vitaly Sukhin	Natalia Kosulina, Stanislav Kosulin	72,5
Poland	Lodz University of Technology	Recognition of polish sign language words	Baranczyk Wiktor	Piotr Duch	72,5
Ukraine	M.Ye. Zhukovskiy National Aerospace University "Kharkiv Aviation Institute"	Medical manipulator for personal staff and sterile boxes	Cherkis Vladyslav	Dovnar Oleksandr	71,7
Ukraine	The Ivan Kozhedub National Air Force University	Analysis of the application and development prospects of an alternative command radio line of control as part of the automated control system of the air forces of the armed forces of Ukraine	Natalia Belous	Mikhail Belous	71,5
India	Bangalore Institute of Technology (India)	Skin cancer detection and classification using machine learning	Manan Karun, Namratha N A, Ramitha R	D. Vijaya Lakshmi	71,5

Ukraine	Donetsk National Technical University	Automatic control system of sugar manufacturing vacuum evaporation machine	Kakoiev Alan	Hanna Telychko	71,0
Ukraine	Odesa National University of Technology	The use of an electromagnetic field as an intensifier of secondary purification of vegetable oils.	Malai Artur	Sheida Golbad Kambiz	71,0
Ukraine	National University "Odesa Polytechnic"	Automation of term interpretation analysis for domain dictionary	Mariia Kozhushan	Oleksii Kungurtsev	71,0
Ukraine	Khmelnyskyi National University	Technology and Scenarios of Objects 3D Models Visualization using Augmented Reality	Mykola Kovtoniuk, Oleksii Shpyliuk	Olga Pavlova	70,5
Ukraine	Kharkov National Automobile and Highway University	Analysis of the semantic model of the academic discipline	Oleksandra Bezridna	Viktoriia Shevchenko	70,0
Ukraine	Odesa National University of Technology	Exploring the modeling and animation process in maya using the arnold visualization module	Maksym Rohach	Svitlana Boltach	70,0
Ukraine	Donbas State Engineering Academy	Web-based system of decision support for calculating combat and non-combat losses during military campaigns in the middle ages	Andrei Kapeleshchuk	Oleksandr Melnykov	69,5
Moldova	Moldova State University	Effective regulation of the online environment in the Republic of Moldova, compared to Ukraine	Andronachi Adrian	Aliona Cara-Rusnac, Kiriak Oksana	69,5
Ukraine	Donetsk National Technical University	Development of a fuzzy model for the automatic control system of air conditioning in a greenhouse	Hryhorenko Danylo	Hanna Telychko	69,3
Ukraine	State University of Biotechnology, Kharkiv	Determination of the bit rate of the analog-to-digital converter of the measurement channel of the technological parameter for automated control systems	Lozova Sofiia, Palamarchuk Anna	Panov Anton	69,0
Ukraine	Vinnytsia Trade and Economic Institute of the State Trade and Economic University	Use of information technologies in the sphere of blagoustroi city	Kolomiets Yaroslav	Nataliia Dobrovolska	69,0
Oman	University of Technology and Applied Sciences, Nizwa, Oman	The Feasibility of using an IoT Smart Device as an Air Pollution Monitoring System	Shifaa Nasser AL-Khatiri, Tahani Nasser Awlad Thani	Dr. Rolando JR M. Lontok	69,0

Ukraine	National University Yuri Kondratyuk Poltava Polytechnic	How to leverage genetic algorithms in games, by example of Heroes of Might and Magic 3	Ievleev Dmytro	Olena Skakalina	68,5
Ukraine	Uzhhorod National University	Online guide	Oleksandr Dudkin Miroslava Misaiilo		68,0
Ukraine	Donbas State Engineering Academy	Application of neural networks for assessing the efficiency of counter-epidemic measures and forecasting changes in the percentage of infected and survived diseases	Dmitry Kozub	Oleksandr Melnykov	67,0
Ukraine	Institute of Special Communications and Information Protection, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Automation of military systems using a network protocol zigbee	Kyrylo Muzychenko	Vladyslav Hol	67,0
Ukraine	Sumy National Agrarian University	Practical programming of 3d content generators on the example of a terrain mesh generator	Roman Kovalov	Oleksandr Borysovych Viunenko	67,0
Ukraine	Ivan Kozhedub Kharkiv National Air Force University	Air traffic control group working methods of study during	Sosnovska Anastasia	Boiko Viacheslav	66,0
Ukraine	Odesa Technical Professional College Odesa National University of Technology	The concept of developing a computer game «alien attack»	Shcherbakov Dmytro	Kunup Tetiana	65,5
Ukraine	Donetsk National Technical University	The impact of ai on humanity	Nikita Rusakov	Telychko Hanna	65,3
Ukraine	Taras Shevchenko National University of Kyiv	Virtualization and programmability in modern networks in the context of sdn concept	Bulgakova Anna	Starkova Olena	65,0
Ukraine	Zhytomyr Ivan Franko State University	Development of an instructional simulator for training drone pilots	Daniel Glushikhin, Yehor Misko	Oleksandr Mosiuk	64,5
Ukraine	Donbas State Engineering Academy	Assessment of forest coverage and processing of information about forest plantations with the help of own developed software	Victoria Denisenko	Oleksandr Melnykov	61,3
Ukraine	Kryvyi Rih National University	Improved system and concentrate recovery	Yaroslav Hriniuk	Andrey Kupin	60,0
Ukraine	State Higher Educational Institution "Donetsk National Technical University"	Automation with industry standards 4.0 quiz when creating a chatbot	Sedov Danil Blazarenas Ivan	Telychko Hanna Stupak Glib	59,5

Ukraine	Kharkiv National University of the Air Force named after Ivan Kozhedub	Optimization of the digital radar transmission path in accordance with modern requirements	Olga Gnusenko	Oleksandr Khizhnyuk	58,0
Ukraine	Odesa National University of Technology	Automation of the process of drying corn cobs in a chamber dryer	Sinievych Viacheslav	Svetlana Sakharova	55,5
Ukraine	Donetsk National Technical University	Development of an automatic water supply control system for a remote village	Romanenkov Dmytro, Kariev Bohdan, Rohozhyn Andrii	Telychko Hanna, Stupak Glib	54,0
Ukraine	Pavlo Tychyna Uman State Pedagogical University	FaceCapture	Vladyslav Yamkovenko	Tetiana Makhometa, Iryna Tiahai	51,0
Ukraine	National Technical University "Kharkiv Polytechnic Institute"	An approach to the analysis of compliance of business process models with their textual descriptions	Rudskiy Oleksandr	Kopp Andrii	48,5
Ukraine	Ivan Kozhedub Kharkiv National Air Force University	Shahed-136	Semko Maria	Harmash Nataliia	44,5
Ukraine	Odesa National University of Technology	Automatic firing system	Artem Stankov		40,7
Ukraine	Professional College of Industrial Automation and Information Technology of Odesa National Technology University	Remote procedure calls	Sofia Savchenko, Danyla Verbinskiy	Iryna Muntian	34,0
Pakistan	National University of Computer and Emerging Sciences Chiniot Faisalabad	How technology affects our lives	Mueez Zahoor, Abdullah Areeba		24,0