

International Competition of Student Scientific Works “Black Sea Science 2025”

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

Country	Institution	Work Title	Authors	Supervisors	Score
Ukraine	National University of Food Technologies	Synthesis of a mechatronic mechanical gripper device for processing fragile food products using 3D additive technologies	Semeniuk Sofiia, Yemelianov Dmytro	Krivoplyas-Volodina Liudmyla	96
Ukraine	Cherkasy State Technological University	Development of a new type of actuator for a flying insect-sized mini-robot	Olena Filimonova	Sergey Filimonov	95
Ukraine	Khmelnyskyi National University	Information technology for mobbing detection in online education based on multifactorial analysis of behavioral characteristics in posts using machine learning	Podhorniuk Iryna	Sobko Olena, Molchanova Maryna	95
Ukraine	Petro Mohyla Black Sea National University	Data acquisition system for prosthetic motion simulation	Nikita Hiulmamedov	Ivan Burlachenko	95
Ukraine	National University Yuriy Kondratyuk Poltava Polytechnic	Development and research of an adaptive drive for the gripping arm of a robot manipulator	Fenko Denys, Yarovyi Ivan	Kyslytsia Svitlana	94,5
Ukraine	Khmelnyskyi National University	Machine learning method for creating augmented reality audio stream to enhance the safety of people with visual impairments	Dydo Rostyslav	Sobko Olena, Mazurets Oleksandr	94
Ukraine	Admiral Makarov National University of Shipbuilding	Automated visitor registration system based on Wi-Fi connection	Bilets Oleksandra	Bozhatkin Sergii	94
Ukraine	National University Odesa Law Academy	Research into the performance of sorting algorithms in typescript	Karahuts Oleksandr	Trofymenko Olena	93,5
Ukraine	National Technical University Kharkiv Polytechnic Institute	Improving alignment of BPMN models and textual descriptions through semantic analysis	Rudskyi Oleksandr	Kopp Andrii	92,3
Poland	Maria Sklodowska Curie Warsaw Higher School	AI-Powered Web Platform for Melanoma Detection Using Convolutional Neural Networks	Wiktorja Duszczyk, Zuzanna Huda, Andrzej Faryna	Sebastian Gorecki, Aleksandra Tatka	92

Ukraine	Sumy State University	Using fuzzy logic for automated detection of faults in the power supply network	Chubur Bohdan, Khaskhachykh Oleksandr	Tymchuk Serhii, Rudenko Andrii	91
Ukraine	Odesa National University of Technology	Analysis of internet addiction among Ukrainian youth - behavioral characteristics and cluster approach	Moiseeva Irina	Sokolova Oksana	91
Ukraine	Khmelnyskyi National University	Method for detecting and recognition the construction waste and remains of destroyed buildings using neural network analysis of photographs	Didur Volodymyr	Molchanova Maryna, Mazurets Oleksandr	91
Ukraine	Ivan Kozhedub Kharkiv National Air Force University	Development of an algorithm for classifying the type of air target using the optimal filtering method and fuzzy logic	Yaroshchuk Roman	Volkov Andrii	90,5
Ukraine	National Technical University Kharkiv Polytechnic Institute	Analysis of architectures and components for optimizing the training of neural networks in emotion age and gender recognition systems	Kravchenko Maksym	Kovalenko Svitlana	90,5
Kazakhstan	Turan University	Development of a chatbot for automated student request processing using NLP technologies	Rufina Idrisova, Timofey Shmarin, Andrey Savgira	Yekaterina Kim	90,5
Ukraine	Donbas State Engineering Academy. Kramatorsk	System of automation of the educational process using the telegram-bot	Pelikh Yevhen	Oleksandr Y. Melnykov	90,5
Ukraine	Mykolaiv National Agrarian University	Determining the discretization intervals for time series measurements of technological process parameters in ASK TP	Ustimenko Oleksandr, Tymoshenko Vitalii	Abramenko Ivan, Sadovyi Oleksii	90
Ukraine	Lviv State University of Life Safety	Web application for determining the compliance of shelters with the degree of radiation protection	Havryliuk Andrii, Bohdan Dmytruk	Nazar Burak	90
Ukraine	Khmelnyskyi National University	Method for analyzing the semantic relevance of test task sets to substantive structure of educational materials using machine learning	Hardysh Daryna	Mazurets Oleksandr, Molchanova Maryna	88,5
Ukraine	Kharkiv National Automobile and Highway University	Modelling the operation of an air conditioner in a vehicle cabin	Tokar Yevhen, Shportko Iryna	Binkovska Anzhela, Nataliia Lukianenko	88,5

Ukraine	Donbass State Engineering Academy	A system for assessing the quality of website background design for people with color blindness	Kanishev Vladyslav	Oleksandr Y. Melnykov	88,5
Ukraine	Pryazovskyi State Technical University	Machine learning models and technologies for classification of Ukrainian music relative to global genres	Shevchenko Artem	Piatykop Olena, Pronina Olha	88,5
Ukraine	State Biotechnological University	Analysis of emotional tone of texts in Ukrainian using natural language processing methods	Andrieiev Oleksandr, Saltanovskyi Dmytro	Chub Iryna, Martynenko Volodymyr	88
Ukraine	Khmelnyskyi National University	Intelligent information system for video recording of crowd actions to determine the psychological and socio-cultural characteristics of groups in the context of critical security monitoring	Hladun Oleksandr	Zalutska Olha, Mazurets Oleksandr	88
Ukraine	Kharkiv National University of Radioelectronics	Implementation of artificial vision methods into a local navigation system for people with visual impairments	Oleksandr, Holovchenko	Barkovska Olesya	88
Ukraine	Lutsk National Technical University	Chatbot as a tool for popularizing stem education	Solomiia Tymoshuk, Mariia Demchuk	Olha Hulai	87,5
Ukraine	Uzhhorod National University	Development of an online platform for monitoring the state of water and soil in the area	Leheta Vasylyna, Riabinchak Valentyn	Morokhovych Vasyl	87
Ukraine	National Aerospace University Kharkiv Aviation Institute	Automation of scenario calculations in UAV routes with the use of information technologies	Artemii Artomov	Yevheniia Sokolova, Alina Artomova	87
Ukraine	Odesa Technical Professional College of Odesa National University of Technology	Trends in the perception of the convenience of modern UI UX solutions in mobile applications among Ukrainian users	Shushman Anastasiia, Mikhailenko Alina	Zhadan Artur, Kryvchenko Yuri	87
Ukraine	Donbass State Engineering Academy	Study of the influence of different factors on the level of illness during a pandemic	Kozub Dmytro	Oleksandr Y. Melnykov	86,5
Ukraine	Kyiv National Economic University	The Digital Library Initiative for the Starobilsk Community	Yatsenko Vitalii, Sidenko Dmytro, Daniil Shkolnyi	Oksana Pomazun	86,5

Ukraine	Sumy State University	A library of graphic elements for creating web applications using artificial intelligence	Artemenko Denis	Antypenko Viktoriia	86,5
Ukraine	Igor Sikorsky Kyiv Polytechnic Institute Ukraine	Cyber incidents detection and analysis using machine learning technologies	Burdeinyi Andrii	Storchak Anton	86,3
Ukraine	Ukrainian State University of Science and Technologies	Study of the quality level of software code support	Zelenko Dariia	Gorbova Alexandra	85,5
Ukraine	Mykolaiv National Agrarian University	Development of a photovoltaic solar installation with an automated sun position tracking system	Hrybov. Stanislav, Somushkin. Yevhen	Koshkin Dmytro	85
Ukraine	Donbas State Engineering Academy Kramatorsk	Optimization of colour palette creation and colour scheme conversion for use by designers	Unehov Artem	Nechvoloda Liudmyla	85
Ukraine	Uzhhorod National University	Development of an information system for knowledge monitoring and assessment	Riabinchak Valentyn	Morokhovych Vasyl	85
Ukraine	Hlukhiv National Pedagogical University Oleksandr Dovzhenko	Emotion-sensitive interfaces application of artificial intelligence for user emotion analysis	Anna Popravko	Andrii Riabko	85
Ukraine	Petro Mohyla Black Sea National University	Gamification of the educational process in higher education institutions for specialties in the field of knowledge computer science	Koshovyi Roman	Kirei Kateryna	84,7
Ukraine	Sumy State University	Information technology of automated infrastructure deployment in cloud environments	Davydov Roman	Velykodnyi Dmytro	84,5
Ukraine	Stepan Demianchuk International University of Economics and Humanities Rivne	Road safety information system	Vodyanitskyi Valentin	Yuskovych-Zhukovska Valentyna	84,5
Ukraine	Sumy State University	Information technology of orchestrating and management of containerized applications in Kubernetes	Vashchenko Olha	Velykodnyi Dmytro	84
Kazakhstan	Turan University	Designing a recommender system for the virtual laboratory methods of modeling random patterns based on the collaborative filtering algorithm	Alexandr Kan, Bogdan Shlepnyov, Anastasiya Gavriloa	Yekaterina Kim	84
Ukraine	Odesa National University of Technology	Application of the Software Development Life Cycle in Mobile App Development	Zihura Tamila	Boltach Svitlana	84

Ukraine	Sumy State University	Decision support system for efficient energy management of hybrid electricity networks	Hordiienko Vladyslav, Tumakov Maksym	Tymchuk Serhii, Mardziavko Vitalii	83,5
Ukraine	Khmelnytskyi National University	Land Surface Temperature Forecasting on the basis of Machine Learning Technologies	Andrii Kuzmin	Olga Pavlova, Vitalii Alekseiko	83
Ukraine	Odesa State Academy of Civil Engineering and Architecture	Information technologies in construction	Skutin Olexii	Balduik Pavlo	82,6
Ukraine	State University Kyiv Aviation Institute	The Prospects of Machine Learning and Artificial Intelligence usage in Healthcare	Studenykov Vlad	Konrad Tetyana	82,5
Ukraine	Sumy State University	Search and recommendation system of open educational resources in the it field	Lichuieva Liudmyla	Antypenko Viktoriia	82,5
Ukraine	Berezhany Vocational College	Development of a robotic simulator device for training and improving the skills of controlling a robotic platform	Kozovskyi Oleksandr	Serhii Shtogryn	82
Ukraine	Lutsk National Technical University	Software for moral and ethical education of teenagers in Ukraine	Sidlovska Yuliia	Boiko Lev, Lukianchuk Iurii	82
Ukraine	Berezhany Agrotechnical Institute	Information system for accounting bibliographical descriptions of scientific conference abstracts	Chepak Oleh, Kotovskyi Anatolii, Lykhodid Taras	Kachurivskyyi Volodymyr, Kachurivska Hanna	81
Ukraine	Mykolaiv National Agrarian University	Creation of an automated process for creating design documentation for electrical distribution devices	Davydenko Ruslan, Tishchenko Dmytro	Mardziavko Vitalii	80,3
Ukraine	State University of Trade and Economics	Development of bilingual sentiment analysis system	Sokrut Danylo	Tomashevska Tetyana	80
Ukraine	Vinnitsia National Technical University	Modeling and simulation of smart electric vehicle charging sites	Forkaliuk Mariia	Bisikalo Oleh	80
Ukraine	Sumy State University	A comprehensive review on user interface user experience design principles in digital learning platforms	Dziabenko Diana	Boiko Olha	80
Ukraine	Donbass State Engineering Academy	Preliminary diagnosis of dyslexia in children using a custom-designed application	Hryshchuk Danyil	Melnykov Oleksandr	79,7

Bulgaria	South-West University "Neofit Rilski"	Investigation of different methods of measuring air flow velocity and pressure through sensors for registration of biometric information	Hristo Hristov, Filip Batalov		79,5
Ukraine	Donbass State Engineering Academy	Decision support system for students choice of educational disciplines in a higher education institution	Shymanska Sofiia	Melnykov Oleksandr	77
Ukraine	Borys Grinchenko Kyiv Metropolitan University	Network Security Analysis - Implementation of Access Policies and Basic-Level Threat Protection	Pihida Danylo, Kravets Artem., Konoval Yevhenii	Hlushak Oksana, Abramov Vadim	76
Ukraine	Kharkiv National Automobile and Highway University	Information technology and a model for selecting software for facial recognition-based identity verification	Vladyslav Andriushchenko	Oleksandr Kononykhin	76
Ukraine	Oles Honchar Dnipro National University	Development of a Real-Time Voice Recognition System Based on Mel-Frequency Cepstral Coefficients and Support Vector Machines	Safiiulina Yana	Nataliia Stepanova	75
Ukraine	Kherson Educational-Scientific Institute of Admiral Makarov National University of Shipbuilding	Analysis of effectiveness of the software tools use for remote learning	Maryna Kachula		74,25
Ukraine	Donbass State Engineering Academy	Forest cover change forecasting module for a specific forestry unit using Landsat satellite service in an existing forest data processing application	Denisenko Victoria	Melnykov Oleksandr	74
Ukraine	Donbass State Engineering Academy	Information and software complex for cryptocurrency rate analysis	Semioshko Yevhenii	Getman Iryna	73,5
Ukraine	Mykolaiv National Agrarian University State Biotechnological University	Determining the bit resolution of the analog-to-digital converter in the ACS parameter measurement channel	Dryha Oleksandr, Pavlichenko Ihor	Demchenko, Kateryna, Vakhonina Larysa	71,5
Ukraine	Odesa National University of Technology	Using of graph-based algorithm for constraint satisfaction problems	Danila Verbinskiy, Sofiia Savchenko		71,5

Ukraine	Sumy State University Mykolaiv National Agrarian University	Development of a methodology using fuzzy regression dependences for short-term forecasting of electricity consumption taking into account meteorological parameters and light level	Hordiienko Vladyslav, Chyniakov Nikita	Tymchuk Serhii, Martynenko Volodymyr	71
Ukraine	Borys Grinchenko Kyiv Metropolitan University	Integrating the Internet of Things into Computer Networks - Basic Configuration and Security	Komar Dmytro, But Sofiia, Kulyk Karyna	Hlushak Oksana, Abramov Vadim	70
Ukraine	Sumy State University	Aiva intelligent system for tracking income expenses and savings	Savenko Anastasia	Kushnerov Oleksandr	70
Ukraine	Sumy State University	Innovations in the Gaming Industry. Blockchain Integration into the Telegram miniapp Ecosystem	Cherkashyn Ivan	Viunenko Oleksandr	70
Ukraine	Mykolaiv National Agrarian University	Design of an automated greenhouse climate control system	Ihnatenko Bohdan, Railko Illia	Rudenko Andrii	68
Ukraine	Sumy State University	Principles of SOC activities in the context of modern cyber threats	Trotsenko Ruslan	Volodymyr Liubchak	67
Ukraine	Odesa Technical Professional College of Odesa National University of Technology	Application of autonomous drones for environmental monitoring in Odesa	Naradko Uliana, Medyantsev Valentin	Kryvchenko Anastasiia, Dzhabrailov Dmytro	61,5
Ukraine	Sumy State University	Analysing images from open sources	Ostrokhishko Artemii	Volodymyr Liubchak	61
Ukraine	Petro Mohyla Black Sea National University	A website for user communication	Serbulov Bohdan	Kateryna Kirei	55,5
Ukraine	International European University	The Role of Robotics in Modern Society Technological Innovations and Future Perspectives and The Arduino Platform Revolutionizing DIY Electronics and Prototyping	Dutchak Kostyantyn		17