

GRAND AWARD WINNERS
of the International Forum for Scientific Youth “Step into the Future”2021

Absolute Championship of the Forum	
The Best Innovation Project	Lily Yordanova DIMITROVA Evelyn Mai WILLIAMS United Kingdom, Leicester Leicester Grammar School, 10 grade SMART TENDON BOOTS FOR SHOWJUMPERS
The Best Project in the Field of New Technologies	Yaman HAS Ceren ZOR Turkey, Izmir Buca Municipality Kızıllı Science and Art Center-Buca IMSEF, 10 grade LIFESAVER DETECTOR
The Best Engineering Project	Adrián KOMANEK Patrik MICHLIAN Slovakia, Nové Zámky Spojená škola, 4 grade FRIENDLY DALEK – Autonomous Robot
The Best Project in the Field of Environmental Protection	João CARVALHO Klára VARGA Sara COUTO Portugal, Porto Colégio Luso-Francês, 12 grade ATMOS – QUANTIFICATION OF THE ECOSYSTEM SERVICES PROVIDED BY LIVING GREEN WALLS FOR ATMOSPHERIC POLLUTANTS REMOVAL
The Best Project in the Field of Natural Sciences	Filip KOLDŽIĆ Serbia, Belgrade Mathematical Gymnasium, 4 grade NOVEL IMIDAZOLE-BASED DYES: SYNTHESIS AND INVESTIGATION OF VARIOUS TYPES OF CHROMISM
The Best Project in the Field of Formal Sciences	Seongjun HEO South Korea, Busan Korea Science Academy of KAIST, 11 grade GEOMETRIC EXPLANATION OF CLASS NUMBER FORMULA
The Best Project in the Humanities	Anusha SPESCHA Switzerland, Zurich Swiss Federal Institute of Technology, 2 year MADMEN ON A JOURNEY: A COMPARISON OF HOMER'S ODYSSEY AND THE SCIENCE FICTION SERIES DOCTOR WHO
The Best Project in the Field of Social Sciences	Viktorija JOVANOVIĆ Serbia, Lebane Gymnasium Lebane, 4 grade EXAMINING THE SHARE OF EXECUTIVE FUNCTION SHIFTING DURING LYING
The Best Original Solution to a Socially Significant Problem	Gabriel RAMSSISS France, Rueil-Malmaison Lycée Parc de Vilgénis, last year POLLUBIKE: MODELING AND BIKING TO MEASURE AIR QUALITY

“The best project in.....”	
Best Project in the Field of Astronautics	Krisjanis BLUMS Latvia, Liepaja Liepaja Rainis 6. Highschool, 12 grade AEROSPIKE ROCKET ENGINE THRUST VECTORING
The Best Project in the Field of Energy	Ramiro VALDÉS Spain, Tres Cantos IES Pintor Antonio López, final year IES PINTOR ANTONIO LOPEZ’S TRANSITION TO PHOTOVOLTAIC ENERGY
The Best Project in the Field of Astronomy	Jorge Perez GONZALEZ Spain, Gijon IES Real Instituto De Jovellanos, 2 year CHARACTERIZATION OF THE VARIABLE STAR EPIC 246257206 DISCOVERED WITH K2-C12-FOV OBSERVATIONS MADE BY THE KEPLER SPACE TELESCOPE
The Best Project in the Field of Environmental Pollution Problems	Jorge Parra GARCÍA Spain, Alcantarilla (Murcia) Alcántara HS of Alcantarilla, 2 year PORTMÁN, A WEIGHT PROBLEM. THE PARADIGM OF SOIL CONTAMINATION
The Best Project in the Field of Biosphere and Earth Problems	Kajal KARKI ¹ Jennifer MICHAEL ² Anna BATMANOVA ³ Luxembourg, Schifflange ¹ , Belval ² , Schouweiler ³ Young Scientists Foundation Luxembourg, 12 grade DEGRADATION OF PLASTIC POLYMERS USING GENETICALLY MODIFIED BACTERIA
The Best Project in the Field of Bioinformatics	ZHANG Yue China, Shandong Province Qingdao No.2 Middle School of Shandong Province, 2 grade SCREENING OF TUMOR DRUG RESISTANCE GENES BY BIOINFORMATICS – EGFR TARGETING DRUGS AS AN EXAMPLE
The Best Project in the Field of Heterocyclic Chemistry	Yiyang ZHAO China, Zhengzhou, Henan High school Henan Experimental Middle School, 2 grade BIOMIMETIC SYNTHESSES OF NATURAL CHROMOPHORIC PHENOXAZINONE COMPOUNDS
The Best Project in the Field of Quantum Chemistry	Muh. Taufiq M Ulfiyaningsih Indonesia, Limbung Universitas Islam Negeri Alauddin Makassar, 5 year QSAR ANALYSIS AND DESIGN OF A NEW AMINOALKANOL XANTHONE DERIVATIVE COMPOUND AS ANTICANCER

Diplomas established by scientific organizations and companies	
Special Diploma established by the Russian Academy of Sciences (RAS)	Zeynep KOCA Ceren CELAYİR Turkey, Izmir Izmir High School of Science, 12th grade A MATHEMATICAL APPROACH TO THE RUMOR SPREAD: MULTIPLE TYPES, MULTIPLE ENDINGS
Diploma established by the Federal Research Center "Prokhorov General Physics Institute of RAS"	Riska Kurniawati Dian Septiawati Indonesia, Bandung Padjadjaran University, 2 year MEASUREMENTS OF RED, GREEN, BLUE (RGB) IMAGE VALUE, LIGHT INTENSITY, HUE VALUE OF LEAFS AND SOIL SALINITY AS THE BASIS OF HEALTH ECOSYSTEM MAPPING OF RHYZOPHORA STYLOSA
Diplomas established by "RusHydro" PJSC	Gede Herry Arum WIJAYA I Dewa Agung Ary Aditya WIBAWA Indonesia, Singaraja, Denpasar Universitas Prasetiya Mulya, 8 semester I-BESS (INTELLIGENT BATTERY ENERGY STORAGE SYSTEM): INNOVATION OF AUTOMATED ENERGY STORAGE BATTERY SYSTEMS BASED ON ARTIFICIAL INTELLIGENCE IN RENEWABLE ENERGY POWER PLANTS Klinka Feyruz CHALISA Armelyza Alder RUSTAM Indonesia, Bandung SMA Taruna Bakti Bandung, 10 grade CFC (CHLOROPHYLL FUEL CELL): ELECTRICITY TEST OF THE CHLOROPHYLL OF PAPAYA LEAVES (CARICA PAPAYA L) AS A GREEN POWER SOURCE OF ELECTRICITY Ramiro VALDÉS Spain, Tres Cantos IES Painter Antonio Lopez, final year IES PINTOR ANTONIO LOPEZ'S TRANSITION TO PHOTOVOLTAIC ENERGY
Diplomas established by Moscow Psychological Society	Anusha SPESCHA Switzerland, Zurich Swiss Federal Institute of Technology, 2 year MADMEN ON A JOURNEY: A COMPARISON OF HOMER'S ODYSSEY AND THE SCIENCE FICTION SERIES DOCTOR WHO

WORKSHOPS' WINNERS
of the International Forum for Scientific Youth "Step into the Future" 2021

"Engineering" Workshop	
First degree diploma	<p>Gabriel RAMSSISS France, Rueil-Malmaison Lycée Parc de Vilgénis, last year POLLUBIKE: MODELING AND BIKING TO MEASURE AIR QUALITY</p>
	<p>Lily Yordanova DIMITROVA Evelyn Mai WILLIAMS United Kingdom, Leicester Leicester Grammar School, 10 grade SMART TENDON BOOTS FOR SHOWJUMPERS</p>
	<p>Yaman HAS Ceren ZOR Turkey, Izmir Buca Municipality Kızılçullu Science and Art Center-Buca IMSEF, 10 grade LIFESAVER DETECTOR</p>
Second degree diploma	<p>Guy ELKAYAM¹ Tamar OSTFELD² Noam VASHDY³ Jonathan LEON⁴ Emma DOMBROVER⁵ Israel, Ramat HaSharon^{1,4}, Yehud², Alfe Menashe³, Herzliya⁵ GreenStart Academy, HaKfar HaYarok High School, Ramat HaSharon, 10 grade BYX – A SYSTEM THAT PREVENTS RIDING BIKES WITH NO HELMET</p>
	<p>Adrián KOMANEK Patrik MICHLIAN Slovakia, Nové Zámky Spojená škola, 4 grade FRIENDLY DALEK – Autonomous Robot</p>
	<p>Krisjanis BLUMS Latvia, Liepaja Liepaja Rainis 6. Highschool, 12 grade AEROSPIKE ROCKET ENGINE THRUST VECTORING</p>
Third degree diploma	<p>Hugo COSTA Hugo REMELGADO Rita MATOS Portugal, Braga Escola Secundária D.Maria II, 12 grade DEVELOPMENT OF AN INTEGRATED SYSTEM FOR DETECTING AND ALERTING IONIZING RADIATION</p>
	<p>Ido SHARON¹ Nadav AVIRAN² Ori COHEN³ Itay COHEN⁴ Rotem MOSES⁵</p>

	<p>Israel, Sal'it¹, Kadima², Ramat HaSharon^{3,4}, Tel Aviv⁵ GreenStart Academy, HaKfarHaYarok High School, Ramat HaSharon, 10 grade¹, 12 grade^{2,3,4}, 11 grade⁵ DRIVEALIVE BY LEECHY - AN IMMOBILIZER THAT PREVENTS DRIVERS FROM DRIVING UNDER THE INFLUENCE OF ALCOHOL</p>
	<p>Max SCHALDACH Switzerland, Zurich Freies Gymnasium Zürich, 12 grade DEVELOPMENT OF A ROTOR WITH IMPROVED AERODYNAMICS TO PROPEL A QUADCOPTER</p>
<p>Diploma in Category "The best start"</p>	<p>Sujita KC Nepal, Kavrepalanchowk Brainycube Research Organization, 2 year AERIAL SURVEILLANCE</p>
	<p>Gede Herry Arum WIJAYA¹ I Dewa Agung Ary Aditya WIBAWA² Indonesia, Singaraja¹, Denpasar² Universitas Prasetiya Mulya, last year (8 semester) I-BESS (INTELLIGENT BATTERY ENERGY STORAGE SYSTEM): INNOVATION OF AUTOMATED ENERGY STORAGE BATTERY SYSTEMS BASED ON ARTIFICIAL INTELLIGENCE IN RENEWABLE ENERGY POWER PLANTS</p>
	<p>Shubhangini SHAH Nepal, Kathmandu Brainycube Research Organization, 1 year AUGMENTED REALITY APPROACH TO CURE COLOUR BLINDNESS</p>
	<p>Sümeyye KARABULUT Ceylin MIHÇI Turkey, Balıkesir Science and Anatolian High School, 12 grade BRIGHT FLOORS FOR OUR ELDERS SHEDDING LIGHT ON OUR FUTURE: AYZEM</p>
	<p>Chaima ZAKHMA¹ Nasrine KARMANI² Tasnim BEN BRAHIM³ Tunisia, Moknine^{1,2}, Sousse³ The Tunisian Association for The future of Sciences and Technology ATAST, 12 grade THE BLIND'S SHINE – THE UNIVERSAL BRAILLE PRINTER</p>
	<p>Nikita ELISTRATOV Russia, Khanty-Mansi Autonomous Okrug-Yugra, Surgut Surgut Natural Science Lyceum, 11 grade ELECTROMAGNETIC INDUCTION AS A SOURCE OF "SECONDARY" ELECTRICITY</p>
	<p>Yegor SAFRONOV Russia, Republic of Sakha (Yakutia), Mirny Polytechnic Lyceum, 10 grade STUDY OF THE TEMPERATURE DEPENDENCE OF THE HEATED BODY ON THE BLOWING SPEED</p>

Diploma established by Russian Technology University - MIREA	Seol Won HONG South Korea, Gyeonggi-do / Yongin-si Heungdeok High School, 10 grade FOG HARVESTER USING STAINLESS STEEL AND TEFLON WIRE
	Gabriel RAMSSISS France, Rueil-Malmaison Lycée Parc de Vilgénis, last year POLLUBIKE: MODELING AND BIKING TO MEASURE AIR QUALITY
Award established by the “Step into the Future” Program “High Schooler - Researcher” Badge	Brendan Michael MIRALLES United Kingdom, Loughborough Loughborough Grammar School, 11 grade USING DATA SCIENCE TO CREATE AN EARLY WILDFIRE DETECTION SYSTEM
	Tomer GAT ¹ Ori Cohen BAZAK ² Israel, Tel Mond ¹ , Ramat Hasharon ² GreenStart Academy, HaKfarHaYarok High School, 10 grade SAFEGUARD
“Formal Sciences” Workshop	
First degree diploma	Seongjun HEO South Korea, Busan Korea Science Academy of KAIST, 11 grade GEOMETRIC EXPLANATION OF CLASS NUMBER FORMULA
	Max FORMAN Czech Republic, Prague Gymnasium Evolution Jižní Město, 6 grade DESCENT OF ORDERED QUADRUPLES
	Anna Rosenova MIHALKOVA Bulgaria, Sofia Sofia High School of Mathematics, 12 grade RANKING OF THE VERTICES IN A WEIGHTED GRAPH
Second degree diploma	Victor Stilianov KOLEV Bulgaria, Sofia Sofia High School of Mathematics, 12 grade MEMORY-AUGMENTED NEURAL AGENTS FOR DEEP MODEL-FREE REINFORCEMENT LEARNING
	Zeynep KOCA Ceren CELAYİR Turkey, Izmir Izmir High School Of Science, 12 grade A MATHEMATICAL APPROACH TO THE RUMOR SPREAD: MULTIPLE TYPES, MULTIPLE ENDINGS
Third degree diploma	Aleksandra DUBOVSKA ¹ Jana ZEBERGA ² Latvia, Riga Riga State Gymnasium №3 ¹ , Riga State Classical Gymnasium ² , 10 grade PREVENTING SENSITIVE DATA LEAK ON SOCIAL MEDIA USING COMPUTER VISION

	<p>Nikola KUŠLAKOVIĆ Serbia, Novi Sad Gymnasium «Isidora Sekulić», 3 grade COMPARISON OF EPIDEMIC SIMULATION EFFICIENCY ON A CENTRAL PROCESSING UNIT AND A GRAPHIC PROCESSING UNIT</p>
	<p>Nikolay Konstantinovich CHERVOV Russia, Altai Krai, Barnaul Gymnasium No. 40 named after the People's Teacher of the USSR Ovsievskaya Rufina Serafimovna, 11 grade ABOUT A PROBLEM IN THE JOURNAL "CRUX MATHEMATICORUM" (OR THE D. J. SMEENK PROBLEM)</p>
Diploma in Category "The best start"	<p>Miroslav CIBULA Slovakia, Bratislava School for Exceptionally Gifted Children, 8 grade OMNIS: MODULAR QUESTION ANSWERING WEB SEARCH ENGINE</p>
	<p>Ashish Anand SINGH Anshul Samir DANI United Kingdom, Leicester Loughborough Grammar School, 10 grade UNIVERSALISING LEADING HEALTH CARE BUDGETING SYSTEMS BY APPLYING SUPERVISED MACHINE LEARNING THROUGH INTEGRATING RECURRENT NEURAL NETWORKS</p>
	<p>Angelina Aleksandrovna KOLOSOVSKAYA Russia, Chelyabinsk region, Troitsk Lyceum No. 13, 11 grade DEVELOPMENT OF THE PROGRAM "MATRIX CALCULATOR" ON VBA</p>
Award established by the "Step into the Future" Program "High Schooler- researcher" badge	<p>Munashe Shane KAGODO Zimbabwe, Harare Saint Francis Xavier's Kutama College, 2 grade MYNOTEBOOK: THE FREE ONLINE E-LEARNING PLATFORM</p>
	<p>Saumya LOHANI Nepal, Kathmandu Brainycube Research Organization, 1 year CRIME ALERT APP</p>
"Natural Sciences" Workshop	
First degree diploma	<p>João CARVALHO Klára VARGA Sara COUTO Portugal, Porto Colégio Luso-Francês, 12 grade ATMOS – QUANTIFICATION OF THE ECOSYSTEM SERVICES PROVIDED BY LIVING GREEN WALLS FOR ATMOSPHERIC POLLUTANTS REMOVAL</p>
	<p>Jorge Perez GONZALEZ Spain, Gijon IES Real Instituto De Jovellanos, 2 year CHARACTERIZATION OF THE VARIABLE STAR EPIC 246257206 DISCOVERED WITH K2-C12-FOV OBSERVATIONS MADE BY THE KEPLER SPACE TELESCOPE</p>

	<p>Filip KOLDŽIĆ Serbia, Belgrade Mathematical Gymnasium, 4 grade NOVEL IMIDAZOLE-BASED DYES: SYNTHESIS AND INVESTIGATION OF VARIOUS TYPES OF CHROMISM</p>
Second degree diploma	<p>Jorge Parra GARCÍA Spain, Alcantarilla (Murcia) Alcántara HS of Alcantarilla, 2 year PORTMÁN, A WEIGHT PROBLEM. THE PARADIGM OF SOIL CONTAMINATION</p>
	<p>David BARBIN France, Saint-Julien du Terroux Lycée Douanier Rousseau, 12 grade IS THE STUDY OF CHEMICAL REACTIONS POSSIBLE ON THE SCALE OF A DROP?</p>
	<p>Arina Vladimirovna PLESKEVICH Russia, Kostroma region, Kostroma Gymnasium No. 28 of the city of Kostroma, 10 grade LOCALIZATION OF EUROPEAN BROOK LAMPREY LARVAE IN THE TEGE RIVER (KOSTROMA REGION) IN RELATION TO THE QUALITY OF HABITAT CONDITIONS: NEW DATA FOR MONITORING THE RED BOOK</p>
Third degree diploma	<p>Murat IŞIK Ege ÇALIŞKAN Turkey, Izmir Buca Municipality Kızılcıllu Science and Art Center-Buca IMSEF, 10 grade BIOINFORMATIC PREDICTION OF CORONAVIRUS (SARS-COV-2) MUTATIONS THAT INCREASE CONTAGIOUSNESS</p>
	<p>Alice BARBERIO¹ Mattia BROLLO² Andrei GHERASE³ Italy, Casale Monferrato^{1,2}, Trino³ Istituto Tecnico e Industriale Ascanio Sobrero, 1 year BIO-N.C.S. CIRCULAR ECONOMY OF RICE: FROM PRODUCTION WASTE TO BIOPLASTICS</p>
	<p>Luka Irenej PEČAN Slovenia, Ljubljana University of Ljubljana, 1 year QUANTITATIVE DETERMINATION OF BIOLOGICALLY ACTIVE COMPOUNDS IN INDUSTRIAL HEMP (CANNABIS SATIVA SUBSP. SATIVA L.) AND ITS MICROBIOLOGY QUALITY</p>
Diploma established by Lomonosov Moscow State University The Best Project In Soil Monitoring And Soil Protection	<p>Jorge Parra GARCÍA Spain, Alcantarilla (Murcia) Alcántara HS of Alcantarilla, 2 year PORTMÁN, A WEIGHT PROBLEM. THE PARADIGM OF SOIL CONTAMINATION</p>
Award established by the "Step into the Future" Program "High Schooler-researcher" badge	<p>Greta KOLCUNOVA Slovakia, Bardejov Gymnázium Leonarda Stöckela, 4 grade COMPARISON OF THE USE OF WHITLOCK-VIBERT BOXES AND EXTERNAL HATCHERIES FOR THE REINTRODUCTION OF THE BROWN TROUT</p>

	<p>Minglei SU Licheng LU China, Shanghai High School Affiliated to Shanghai Jiao Tong University, 11 grade ASSOCIATION OF SLC6A3, ADRA2A, COMT GENE POLYMORPHISMS WITH INTROVERSION AND EXTROVERSION</p>
“Social Sciences” Workshop	
First degree diploma	<p>Anusha SPESCHA Switzerland, Zurich Swiss Federal Institute of Technology, 2 year MAD MEN ON A JOURNEY: A COMPARISON OF HOMER'S ODYSSEY AND THE SCIENCE FICTION SERIES DOCTOR WHO</p>
Second degree diploma	<p>Viktorija JOVANOVIĆ Serbia, Lebane Gymnasium Lebane, 4 grade EXAMINING THE SHARE OF EXECUTIVE FUNCTION SHIFTING DURING LYING</p>
	<p>Konstantin SIGALOV Russia, Saint Petersburg Engineering and Technological School No. 777 of St. Petersburg, 7 grade ENGLISH ACRONYMS IN VIRTUAL COMMUNICATION</p>
Third degree diploma	<p>Novi Indah PRIHATININGSIH Rizal Saputra Indonesia, Purbalingga, Central Java State Vocational High School 1, last year “SAJEN” ANALYTICAL STUDIES OF OFFERINGS CULTURE AS AGRICULTURAL SYSTEM IN THE PAST</p>
	<p>Olga YAROTSKAYA Russia, Murmansk Murmansk Academic Lyceum, 11 grade GENDER ASPECTS OF DISTANCE LEARNING FOR SCHOOLCHILDREN</p>
<p>Award established by the “Step into the Future” Program “High Schooler- researcher” Badge</p>	<p>Naida MURTAZALIEVA Russia, Makhachkala Multidisciplinary gymnasium №38, 10 grade THE WHITE SQUARE OF THE CULTURAL CODE OF DAGESTAN</p>