



# Global Youth Science and Technology Bowl (GYSTB) 2022

## Award List

### Physics and Engineering (PE) Category

Award	Team No.	Project Title	Country / Region
Grand Prize - Gold Award	IAPE110	Automated Inflation and Pressure Regulation for Recreational and Professional Cyclists	South Africa
	IAPE015	PESH: Piezoelectric energy harvester using sloshing-induced impact force	South Korea
Grand Prize - Silver Award	IAPE135	Building an Automatic Weather Satellite Ground Station with Data Analytics Forecast	Ireland
	IAPE140	EMG Rehab System - A Package for Stroke Self Rehabilitation	Hong Kong
Grand Prize - Bronze Award	IBPE084	Rotational Placement and Mathematical Patterns: an Experimental Study	Sweden
	IBPE079	Investigating the Bioelectric Effect for Treatment and Subsequent Inhibition of Nosocomial Biofilms	Singapore
First Prize	IBPE107	High Efficiency Photovoltaic Panel for Cold Climate Regions "ANTI-SNOW"	Turkiye
	IAPE006	Intelligent Driver Drowsiness Detection System	Hong Kong
	IAPE083	Marine Guard	Hong Kong
	IAPE119	High Capacity, High Stability and Low Corrosive Al-treated Ionic Liquid Electrolyte with Al-deposited Carbon Anode used in Aluminum-ion Battery	Macau
Second Prize	IAPE044	Prototype and testing of pure hydrogen generator	Sweden
	IAPE068	Producing Fresh water from air using Thermo Electric cooling	Qatar
	IAPE009	Food Waste Up-cycler	Hong Kong
	IAPE100	NLP Powered Wheelchair with Road Condition Intelligence for Disabled Locomotor	South Korea

Award	Team No.	Project Title	Country / Region
Second Prize	IBPE051	The New Biodegradable Filter for Face Mask	Hong Kong
	IAPE033	Developing a Low-Cost Portable Electronic Nose for the Detection of Colorectal Cancer By Using Convolutional Neural Networks	Macau
Third Prize	IBPE061	New Identity for Regular Tetrahedron	Georgia
	IBPE014	A study on the vibration damping structure using the inner skeletal structure of the Anthocidaris crassispina	South Korea
	IAPE041	Magnetic Nanoparticles Decorated Titanium Dioxide Nanocylinders for Cancer Therapeutic Delivery	Thailand
	IBPE012	Optimizing the Landing of a Spacecraft Using Q-learning	South Korea
	IBPE024	Hurricane in the cup- vortices' trochoidal motion and the effects of instability during diffusion in liquids	Poland
	IBPE013	Cryptocurrency as means for hedge fund	South Korea
	IAPE101	EMR Blockchain Network Using Asymmetric Key: How to Safely Manage a Patient's EMR	South Korea
	IAPE050	Intelligent Evacuation System Using AI	Qatar
Honourable Mention	IAPE047	Chronograph based on the Arduino hardware computing platform	Ukraine
	IAPE029	IV Fluid Controlling and Monitoring System	India
	IAPE046	Automated System for Cleaning Solar Panels using Atmospheric Moisture	Qatar
	IAPE121	A Novel of Ankle Support from Blended Yarn Between Hemp Fiber Bamboo Sheath Fiber and Cotton to Prevent Ankle Injuries	Thailand
	IAPE108	The model for determining the influence of force fields on the drag of aircraft	Ukraine
	IBPE071	The Motion of Bodies in Curved Plane and Space Affected by Gravity	Georgia
	IAPE065	Creation of a demonstration installation of Chladni figures on the basis of affordable modern technologies at home	Ukraine

Award	Team No.	Project Title	Country / Region
Honourable Mention	IAPE028	Melanoma Skin Cancer Classification via Region-Aware Hierarchical Feature Aggregation	United States
	IAPE022	Remote Irrigation System	United Arab Emirates
	IAPE026	AI Eye	Hong Kong
	IBPE049	Digital Image Zooming Using Interpolation	Georgia
	IAPE038	Secure-Online Voting System Using Homomorphic Encryption	South Korea
Sustainable Development Award	IAPE044	Prototype and testing of pure hydrogen generator	Sweden
	IAPE009	Food Waste Up-cycler	Hong Kong