Global Youth Science and Technology Bowl (GYSTB) 2022 Finals

Date: 11 June 2022 (Sat)

- Hong Kong Time HKT (GMT+8) shall prevail for the judging schedule
- Team Number with “*” will be eligible to compete for the Sustainable Development Award
- All team members should login to the Zoom Meeting **at least 15 minutes** before the scheduled judging time, late arrival will not be entertained
- Each team will have **5 minutes** for project presentation and **4 minutes** for Q&A
- Supervisors/Teachers are not allowed to join the Zoom Meeting
- The whole judging process will be **video-recorded** and **live streamed** to GYSTB Facebook Group
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<tr>
<th>Judging Panel</th>
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<tr>
<td>BC01</td>
<td>HKT 09:00 - 09:15</td>
<td>IBBC035</td>
<td>Cultivation Methods to Produce Vegetables at Home During the International Year of Fruits and Vegetables 2021</td>
<td>Mexico</td>
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<tr>
<td>BC01</td>
<td>HKT 09:15 - 09:30</td>
<td>IABC008*</td>
<td>Forma-Rid Chitosan Gel</td>
<td>Hong Kong</td>
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<tr>
<td>BC01</td>
<td>HKT 09:30 - 09:45</td>
<td>IABC103*</td>
<td>Research on the Influence of “Electric-Magnetic Field” on Chemical Reactions</td>
<td>Macau</td>
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<tr>
<td>BC01</td>
<td>HKT 09:45 - 10:00</td>
<td>IBBC057*</td>
<td>Minimally Invasive Annuloplasty Using Shape-Memory Materials</td>
<td>Singapore</td>
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<tr>
<td>BC01</td>
<td>HKT 10:15 - 10:30</td>
<td>IABC043*</td>
<td>Improvement of Fe$_3$O$_4$ Ferrofluids-Based Antimicrobial Activity through Particle Size Control Assisted by Biocompatible Surfactants</td>
<td>Indonesia</td>
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<tr>
<td>BC01</td>
<td>HKT 10:30 - 10:45</td>
<td>IABC081*</td>
<td>Development of cotinine test kit for detection of secondhand smoke exposers</td>
<td>Thailand</td>
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<tr>
<td>BC01</td>
<td>HKT 10:45 - 11:00</td>
<td>IBBC007</td>
<td>The use of brine shrimp to test for water pollutants</td>
<td>Hong Kong</td>
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<tr>
<td>BC01</td>
<td>HKT 11:00 - 11:15</td>
<td>IABC088*</td>
<td>Innovation of Biocellulose Sheet Mask Based on SCOBY with Antioxidant Serum from Rice Bran Oil to Reduce Microplastic Waste</td>
<td>Indonesia</td>
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<tr>
<td>BC01</td>
<td>HKT 13:00 - 13:15</td>
<td>IBBC099*</td>
<td>Amplifying the Atmospheric Water Harvesting Capabilities of Calcium Chloride Via a Cellulose Sponge Medium</td>
<td>Indonesia</td>
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<tr>
<td>BC01</td>
<td>HKT 13:15 - 13:30</td>
<td>IBBC075*</td>
<td>Biomass Waste Utilization for Synthesis of Zeolite A As A Low Cost and Potential Absorbent for Removing Dye and Heavy Metal Applications</td>
<td>Thailand</td>
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<tr>
<td>BC01</td>
<td>HKT 13:30 - 13:45</td>
<td>IBBC122*</td>
<td>The efficiency of TLS-01 lunar regolith simulant on sunflower seed germination for future astroculture</td>
<td>Thailand</td>
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<tr>
<td>BC01</td>
<td>HKT 13:45 - 14:00</td>
<td>IBBC090</td>
<td>Calcium Phosphate/Collagen Ratio in Bone Grafts Influences Bone Repair in a Rabbit Tibial Defect Model</td>
<td>Singapore</td>
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<tr>
<td>BC01</td>
<td>HKT 14:15 - 14:30</td>
<td>IABC064*</td>
<td>In silico research of the potential role of a number of compound class N-acylethanolamines as inhibitors of E-protein of the coronavirus SARS-CoV-2</td>
<td>Ukraine</td>
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<tr>
<td>BC01</td>
<td>HKT 14:30 - 14:45</td>
<td>IBBC037</td>
<td>Dosage-dependent Protective Effect of Melatonin and Sulforaphan Adminstration on In-vitro Alzheimer's Disease Model</td>
<td>Turkey</td>
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<td>BC01</td>
<td>HKT 14:45 - 15:00</td>
<td>IBBC111*</td>
<td>Prevent fresh food spoilage by use of phytochemical plant extracts</td>
<td>South Africa</td>
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<td>BC01</td>
<td>HKT 15:00 - 15:15</td>
<td>IBBC039*</td>
<td>Evaluating the Inhibitory Effects of 5 Types of Beans on Trypsin/Chymotrypsin</td>
<td>Sweden</td>
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<td>BC02</td>
<td>HKT 09:00 - 09:15</td>
<td>IBBC087*</td>
<td>Association of Allergy and Emotion: An Exploratory Study Using Electroencephalography</td>
<td>Canada</td>
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<tr>
<td>BC02</td>
<td>HKT 09:15 - 09:30</td>
<td>IABC017*</td>
<td>Automatic air purification self-cleaning system in elevator</td>
<td>Macau</td>
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<td>BC02</td>
<td>HKT 09:30 - 09:45</td>
<td>IBBC055*</td>
<td>The Spike Protein of SARS-CoV-2 Targets the Human PRL Oncogene</td>
<td>Singapore</td>
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<td>BC02</td>
<td>HKT 09:45 - 10:00</td>
<td>IBBC010*</td>
<td>ACE fertilizer</td>
<td>Hong Kong</td>
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<td>BC02</td>
<td>HKT 10:15 - 10:30</td>
<td>IABC042*</td>
<td>Deep learning Line Bot to screen COVID-19 from sound wave analysis</td>
<td>Thailand</td>
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<td>BC02</td>
<td>HKT 10:30 - 10:45</td>
<td>IABC086*</td>
<td>Edible Film With Fish Freshness Sensor Technology Based on Parijoto Fruit Anthocyanin Indicator (EDI BERSERI)</td>
<td>Indonesia</td>
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<td>BC02</td>
<td>HKT 10:45 - 11:00</td>
<td>IBBC074*</td>
<td>Antimicrobial Effects of Rice Extract on Acne Causing Bacteria Cutibacterium Acnes</td>
<td>Thailand</td>
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<td>BC02</td>
<td>HKT 11:00 - 11:15</td>
<td>IBBC018</td>
<td>Bone and plant fibre composite bioplastic</td>
<td>Macau</td>
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<td>BC02</td>
<td>HKT 11:15 - 11:30</td>
<td>IBBC150</td>
<td>Fabrication and study of optical properties of TbPO4 for cancer cell recognition</td>
<td>Vietnam</td>
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<tr>
<td>BC02</td>
<td>HKT 13:00 - 13:15</td>
<td>IBBC102*</td>
<td>The study of efficiencies of ‘Pistia Stratiotes’ for absorbing heavy metals and treatment of soft acidity wastewater.</td>
<td>Thailand</td>
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<td>BC02</td>
<td>HKT 13:15 - 13:30</td>
<td>IBBC066</td>
<td>Study of Shiga-Toxin-Producing E.Coli Specific Gene Expression</td>
<td>Georgia</td>
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<td>BC02</td>
<td>HKT 13:30 - 13:45</td>
<td>IBBC093*</td>
<td>Effect of different NPK ratios on the mass and chlorophyll content of the kangkong plant.</td>
<td>Singapore</td>
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<td>BC02</td>
<td>HKT 13:45 - 14:00</td>
<td>IBBC130*</td>
<td>Study the quantitative of microplastics accumulation in the gastrointestinal tract of aquatic animals and the efficacy of gut microbiota on microplastics elimination</td>
<td>Thailand</td>
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<td>BC02</td>
<td>HKT 14:15 - 14:30</td>
<td>IABC073*</td>
<td>Detection of Diabetes and Blood Glucose Level From Gas Analysis of Human Breath</td>
<td>Qatar</td>
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<td>BC02</td>
<td>HKT 14:30 - 14:45</td>
<td>IBBC069*</td>
<td>The Analysis of Nighttime Sleep Quality, Autonomic Nervous System Disorders, and Cognitive Functions in Adolescents and the Search for Methods of Their Correction</td>
<td>Ukraine</td>
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<td>BC02</td>
<td>HKT 14:45 - 15:00</td>
<td>IBBC034</td>
<td>Investigation of mRNA levels in Hodgkin's lymphoma patients and the effect of drug additive on Hodgkin's lymphoma cells</td>
<td>Sweden</td>
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<td>BC02</td>
<td>HKT 15:00 - 15:15</td>
<td>IBBC112*</td>
<td>Nature takes on nature: investigating the effects of juglone on japanese knotweed</td>
<td>Ireland</td>
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<td>PE01</td>
<td>HKT 09:00 - 09:15</td>
<td>10 June 2022 (Fri) EDT 21:00 - 21:15</td>
<td>IAPE028</td>
<td>Melanoma Skin Cancer Classification via Region-Aware Hierarchical Feature Aggregation</td>
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<tr>
<td>PE01</td>
<td>HKT 09:15 - 09:30</td>
<td>10 June 2022 (Fri) MDT 19:15 - 19:30</td>
<td>IAPE133*</td>
<td>Supporting me to walk, together we can move forward</td>
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<tr>
<td>PE01</td>
<td>HKT 09:30 - 09:45</td>
<td>HKT 09:30 - 09:45</td>
<td>IAPE006</td>
<td>Intelligent Driver Drowsiness Detection System</td>
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<td>PE01</td>
<td>HKT 09:45 - 10:00</td>
<td>KST 10:45 - 11:00</td>
<td>IAPE015*</td>
<td>PESH: Piezoelectric energy harvester using sloshing-induced impact force</td>
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<td>PE01</td>
<td>HKT 10:00 - 10:15</td>
<td>HKT 10:00 - 10:15</td>
<td>IAPE009*</td>
<td>Food Waste Up-cycler</td>
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<td>PE01</td>
<td>HKT 10:15 - 10:30</td>
<td>SGT 10:15 - 10:30</td>
<td>IBPE079</td>
<td>Investigating the Bioelectric Effect for Treatment and Subsequent Inhibition of Nosocomial Biofilms</td>
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<td>PE01</td>
<td>HKT 10:30 - 10:45</td>
<td>CST 10:30 - 10:45</td>
<td>IAPE033*</td>
<td>Developing a Low-Cost Portable Electronic Nose for the Detection of Colorectal Cancer By Using Convolutional Neural Networks</td>
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<td>PE01</td>
<td>HKT 10:45 - 11:00</td>
<td>ICT 9:45 - 10:00</td>
<td>IAPE151</td>
<td>Using a mathematical model to predict COVID-19 trends in Southeast Asian countries in 2022</td>
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<td>PE01</td>
<td>HKT 11:00 - 11:15</td>
<td>HKT 11:00 - 11:15</td>
<td>IBPE051*</td>
<td>The New Biodegradable Filter for Face Mask</td>
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<td>PE01</td>
<td>HKT 11:15 - 11:30</td>
<td>KST 12:15 - 12:30</td>
<td>IAPE100</td>
<td>NLP Powered Wheelchair with Road Condition Intelligence for Disabled Locomotor</td>
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<td>PE01</td>
<td>HKT 11:30 - 11:45</td>
<td>ICT 10:30 - 10:45</td>
<td>IAPE041*</td>
<td>Magnetic Nanoparticles Decorated Titanium Dioxide Nanocylinders for Cancer Therapeutic Delivery</td>
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<td>PE01</td>
<td>HKT 13:00 - 13:15</td>
<td>KST 14:00 - 14:15</td>
<td>IAPE101*</td>
<td>EMR Blockchain Network Using Asymmetric Key: How to Safely Manage a Patient's EMR</td>
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<td>PE01</td>
<td>HKT 13:15 - 13:30</td>
<td>ICT 12:15 - 12:30</td>
<td>IAPE121*</td>
<td>A Novel of Ankle Support from Blended Yarn Between Hemp Fiber Bamboo Sheath Fiber and Cotton to Prevent Ankle Injuries</td>
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<td>PE01</td>
<td>HKT 13:30 - 13:45</td>
<td>GET 09:30 - 09:45</td>
<td>IBPE071</td>
<td>The Motion of Bodies in Curved Plane and Space Affected by Gravity</td>
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<td>PE01</td>
<td>HKT 13:45 - 14:00</td>
<td>KST 14:45 - 15:00</td>
<td>IBPE012</td>
<td>Optimizing the Landing of a Spacecraft Using Q-learning</td>
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<td>PE01</td>
<td>HKT 14:00 - 14:15</td>
<td>GET 10:00 - 10:15</td>
<td>IBPE049</td>
<td>Digital Image Zooming Using Interpolation</td>
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<td>PE01</td>
<td>HKT 14:15 - 14:30</td>
<td>KST 15:15 - 15:30</td>
<td>IBPE014*</td>
<td>A study on the vibration damping structure using the inner skeletal structure of the Anthocidaris crassispina</td>
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<td>PE01</td>
<td>HKT 14:30 - 14:45</td>
<td>AST 09:30 - 09:45</td>
<td>IAPE050*</td>
<td>Intelligent Evacuation System Using AI</td>
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<td>PE01</td>
<td>HKT 14:45 - 15:00</td>
<td>EEST 09:45 - 10:00</td>
<td>IAPE047</td>
<td>Chronograph based on the Arduino hardware computing platform</td>
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<td>PE01</td>
<td>HKT 15:00 - 15:15</td>
<td>AST 10:00 - 10:15</td>
<td>IAPE068*</td>
<td>Producing Fresh water from air using Thermo Electric cooling</td>
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<td>PE01</td>
<td>HKT 15:15 - 15:30</td>
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<td>IBPE084*</td>
<td>Rotational Placement and Mathematical Patterns: an Experimental Study</td>
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<td>HKT 15:30 - 15:45</td>
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<td>IBPE024*</td>
<td>Hurricane in the cup- vortices' trochoidal motion and the effects of instability during diffusion in liquids</td>
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<td>IAPE110</td>
<td>Automated Inflation and Pressure Regulation for Recreational and Professional Cyclists</td>
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<tr>
<td>PE02</td>
<td>HKT 09:00 - 09:15</td>
<td>IAP105</td>
<td>A Novel Out-of-Distribution Detector based on Autoencoder and Binary Classifier with Auxiliary Input</td>
<td>United States</td>
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<td>PE02</td>
<td>HKT 09:15 - 09:30</td>
<td>IAP020</td>
<td>Application for Android programmed in MIT App Inventor about Mayan Culture and Chichen Itza</td>
<td>Mexico</td>
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<td>PE02</td>
<td>HKT 09:30 - 09:45</td>
<td>IAP132</td>
<td>Manipulation of Math</td>
<td>Mexico</td>
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<td>PE02</td>
<td>HKT 09:45 - 10:00</td>
<td>IAP025</td>
<td>Automatic Carotid Intima-Media Thickness Segmentation using Attention based Convolutional Neural Network with Domain-Specific Objective</td>
<td>Philippines</td>
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<td>PE02</td>
<td>HKT 10:00 - 10:15</td>
<td>IAP038</td>
<td>Secure-Online Voting System Using Homomorphic Encryption</td>
<td>South Korea</td>
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<td>PE02</td>
<td>HKT 10:15 - 10:30</td>
<td>IAP026</td>
<td>Al Eye</td>
<td>Hong Kong</td>
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<tr>
<td>PE02</td>
<td>HKT 10:30 - 10:45</td>
<td>IAP054</td>
<td>Explainable Convolution Neural Network for predicting Coronary Artery Disease from Radiographs</td>
<td>Singapore</td>
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<tr>
<td>PE02</td>
<td>HKT 10:45 - 11:00</td>
<td>IAP098</td>
<td>Disentanglement of Latent Factors of Radiographic Knee Images for Knee Osteoarthritis Severity Classification</td>
<td>South Korea</td>
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<td>PE02</td>
<td>HKT 11:00 - 11:15</td>
<td>IAP040*</td>
<td>The invention of a propeller for Aerator Oxygen in Water imitating a Yang Na Seeds</td>
<td>Thailand</td>
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<td>PE02</td>
<td>HKT 11:15 - 11:30</td>
<td>IAP119*</td>
<td>High Capacity, High Stability and Low Corrosive Al-treated Ionic Liquid Electrolyte with Al-deposited Carbon Anode used in Aluminum-ion Battery</td>
<td>Macau</td>
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<td>PE02</td>
<td>HKT 11:30 - 11:45</td>
<td>IAP140</td>
<td>EMG Rehab System - A Package for Stroke Self Rehabilitation</td>
<td>Hong Kong</td>
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<td>PE02</td>
<td>HKT 11:45 - 12:00</td>
<td>IAP080*</td>
<td>The production of biodegradable battery Using by Galvanic cell reaction between Silica electrode with chemical husk ash solution</td>
<td>Thailand</td>
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<td>PE02</td>
<td>HKT 13:30 - 13:45</td>
<td>IAP116</td>
<td>The Cost-effective Development of Cryogenic Vaccine Carrier for Developing Countries in Africa</td>
<td>South Korea</td>
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<td>PE02</td>
<td>HKT 13:45 - 14:00</td>
<td>IAP022*</td>
<td>Remote Irrigation System</td>
<td>United Arab Emirates</td>
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<td>PE02</td>
<td>HKT 14:00 - 14:15</td>
<td>IAP029*</td>
<td>IV Fluid Controlling and Monitoring System</td>
<td>India</td>
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<td>HKT 14:15 - 14:30</td>
<td>IB061</td>
<td>New Identity for Regular Tetrahedron</td>
<td>Georgia</td>
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<td>PE02</td>
<td>HKT 14:30 - 14:45</td>
<td>IB013</td>
<td>Cryptocurrency as means for hedge fund</td>
<td>South Korea</td>
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<td>PE02</td>
<td>HKT 14:45 - 15:00</td>
<td>IB017*</td>
<td>High Efficiency Photovoltaic Panel for Cold Climate Regions &quot;ANTI-SNOW&quot;</td>
<td>Turkey</td>
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<td>PE02</td>
<td>HKT 15:15 - 15:30</td>
<td>IAP068*</td>
<td>Creation of a demonstration installation of Chladni figures on the basis of affordable modern technologies at home</td>
<td>Ukraine</td>
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<td>PE02</td>
<td>HKT 15:30 - 15:45</td>
<td>IAP044*</td>
<td>Prototype and testing of pure hydrogen generator</td>
<td>Sweden</td>
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<tr>
<td>PE02</td>
<td>HKT 15:45 - 16:00</td>
<td>IB062*</td>
<td>Developing Thermoelectric Sandwich Method to Recover Wasted Energy in Aluminum Production</td>
<td>Qatar</td>
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<tr>
<td>PE02</td>
<td>HKT 16:00 - 16:15</td>
<td>IB062*</td>
<td>Marine Guard</td>
<td>Hong Kong</td>
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<td>PE02</td>
<td>HKT 16:15 - 16:30</td>
<td>IAP046*</td>
<td>Automated System for Cleaning Solar Panels using Atmospheric Moisture</td>
<td>Qatar</td>
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<td>PE02</td>
<td>HKT 16:30 - 16:45</td>
<td>IAP135*</td>
<td>Building an Automatic Weather Satellite Ground Station with Data Analytics Forecast</td>
<td>Ireland</td>
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<td>PE02</td>
<td>HKT 16:45 - 17:00</td>
<td>IAP108*</td>
<td>The model for determining the influence of force fields on the drag of aircraft</td>
<td>Ukraine</td>
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