







ASEAN Student Science Project Award Announcement

The 8th ASEAN Student Science Project Competition (ASPC 2022)

1 - 3 July 2022

Online Competition

Project Proposal Category

| Award | Project | Country | Student Name | Name of Project |
|--------------|---------|----------|---------------------------------|---------------------------|
| | Number | | | |
| First Prize | - | - | - | - |
| | | | | |
| Second Prize | PP-AP03 | Malaysia | 1. Syed Hariz Al-Idrus Bin Syed | ACQUAVOLT |
| | | | Mohammad Hafiz Al-Idrus | |
| | | | 2. Harith Bin Mohd Aizam | |
| | | | 3. Muhammad Dhahir Eddin Bin | |
| | | | Mohd Johan | |
| Third Prize | PP-AP02 | Cambodia | 1. Empiseysocheata In | The Toxic Gases |
| | | | 2. Vatthanateppy Sopheak | Converting Machine |
| Consolation | PP-AP04 | Myanmar | 1. May Han Htoo | Air Purifier with Natural |
| | | | 2. Tharyar Min | |
| | | | 3. Chaw Khant Khant Zaw | |









Full Experimental Project Category

#1: Physical Science

| Award | Project | Country | Student Name | Name of Project |
|--------------|---------|-----------|-------------------------|------------------------------------|
| | Number | | | |
| First Prize | PH07 | Singapore | 1. Tianshi Qi | Effect of magnetic anisotropy on |
| | | | 2. An Wei Teck | spin current-driven magnetization |
| | | | | auto-oscillation |
| Second Prize | PH05 | Singapore | 1. Jing Rong Daryl Wang | Continuous Flow Synthesis for |
| | | | | rapid access of Active |
| | | | | Pharmaceutical Ingredients |
| Third Prize | PH08 | Thailand | 1. Chalisa Srikum | Age determination and comparison |
| | | | | of open and globular star clusters |
| | | | | by HR-diagram |
| Consolation | PH06 | Singapore | 1. Tan Jun Wei | Designing Arbitrary Non-Hermitian |
| | | | | Hamiltonian Spectra via |
| | | | | Electrostatic Conformal Maps |









#2: Biological Science

| Award | Project Number | Country | Student Name | Name of Project |
|--------------|-------------------|-----------|---------------------------|-------------------------------------|
| First Prize | BIO04 | Singapore | 1. Xu Rulin | Investigating the effects of YWHAB |
| | | · | 2. Zhao Xinyue | gene on colorectal cancer cell |
| | | | | growth |
| Second Prize | BIO08 | Thailand | 1. Panatas Chaiprakan | The Effect of Herbal Extract |
| | | | 2. Porawat Dontanam | Supplementation on Biological and |
| | | | 3. Sirawich Laolapha | Productive Character of Silkworm: A |
| | | | | Novel Approach for Efficient Silk |
| | | | | Sheath Production |
| Third Prize | BIO07 | Thailand | 1. Arpornpat Tharnlert | The Development of an Artificial |
| | | | 2. Sorayut Thanonkaew | Ecosystem for Firefly Nursery |
| Consolation | BIO01 | Indonesia | 1. Vania Anindita Hartomo | Analysis of the Potential of |
| | | | 2. Najikha Aaliyah Azhar | Mangosteen Compounds as |
| | | | | Glycoprotein Inhibitors 2019-nCOV |
| | | | | Based on Computational Chemistry |
| | | | | Approach: Molecular Docking |
| Consolation | BIO06 | Thailand | 1. Bowonchai Sukchaibowon | Study of Morphology and Prey |
| | | | 2. Pitayaporn Thongkoo | Trapping Mechanism of <i>Dionea</i> |
| | | | 3. Siraprapa Pimdee | Muscipula for Application |









#3: Applied Science

| Award | Project | Country | Student Name | Name of Project |
|--------------|---------|-----------|---------------------------|--|
| | Number | | | |
| First Prize | AP15 | Thailand | 1. Phandej Soisamuth | Semi-Supervised Learning with Graph Neural |
| | | | 2. Theeradon Sakpetch | Networks to Improve the Predictive |
| | | | | Performance of Drug Response for HIV-1 |
| | | | | Protease Inhibitors |
| Second Prize | AP04 | Indonesia | 1. Farrel Aryo Wahyudi | Wrist Strap Innovation for Body Temperature |
| | | | | (oC), Heart Rate (bpm), and Oxygen Saturation |
| | | | | Level (%SpO2) Real-Time Monitoring Using |
| | | | | Photoplethysmograph Method |
| Third Prize | AP10 | Singapore | 1. Jay Tan Jun Jie | Discrimination of Extra Virgin Olive Oil |
| | | | | Adulteration Through Non-destructive |
| | | | | Capacitance Methods |
| Consolation | AP05 | Myanmar | 1. Aung Kaung Pyae | Macroscopic traffic flow models of Yangon, |
| | | | 2. Yoon Thiri Aung | Myanmar for real-time travel time estimation |
| | | | 3. Mya Phoo Khin | |
| Consolation | AP11 | Singapore | 1. Jiayue Zou | Heterotrophic cultivation of microalgae in food |
| | | | | waste digestate for simultaneous biomass |
| | | | | production and nutrient remediation |
| Consolation | AP12 | Singapore | 1. Ryan Chin Rui En | Investigating the relationship between pH and |
| | | | | the stability of oil-in-water emulsions with soy |
| | | | | lecithin with Critical Coagulation Concentration |
| | | | | of Potassium Chloride added via salt titration, |
| | | | | and conductivity-derived emulsion stability |
| Consolation | AP14 | Thailand | 1. Panuwat Wongpattanawut | Program to Help Diagnose and Screen Patients |
| | | | | for Symptoms of Lung Infection with COVID-19 |
| | | | | by Categorizing the Hazard level from X-ray |
| | | | | Film Images with Artificial Intelligence |









ASPC PROJECT OF THE YEAR 2022

| Award | Project | Country | Student Name | Name of Project |
|-----------------|---------|-----------|--------------|--------------------------------------|
| | Number | | | |
| ASPC PROJECT OF | AP09 | Singapore | 1. Eunice Ho | Artificial Metalloenzymes by |
| THE YEAR 2022 | | | | Creation of Novel Catalytic Sites in |
| | | | | DNA Scaffolds |