

Project Code:

# SINGAPORE SCIENCE & ENGINEERING FAIR 2021

## (MAIN CATEGORY)

### ENTRY FORM

Please refer to the SSEF 2021 website (<http://www.science.edu.sg/ssef>) for details on the application process and all the submission requirements. **All project documents must be received Friday, 29 January 2021, 23:59.**

#### PROJECT INFORMATION

Type of Participation:	Project Category*:	Project Sub-Category*:
Title of Research Project:		

*\* Please refer to Annex A for the list of categories and sub-categories. Selecting the appropriate category and sub-category is important to ensure that the assigned judges are familiar with your research topic.*

#### DECLARATION BY PARTICIPANT(S)<sup>§</sup>

I / We hereby certify that all the information provided to SSEF organisers is correct. I / We did not plagiarise material, forge or fabricate data, use or present other researcher's work as our own in my / our research project. I / We consent to the use of the information / project I / we submit to the organisers for publicity purpose. I / We understand that all the materials I / we submit will not be returned to me / us.

##### Individual / Team Leader (i.e. team member 1)

Full name:	School Level (e.g. Sec 3, IP4)	
Signature:	School:	Date:

##### For Team Projects:

##### Team Member 2

Full name:	School Level (e.g. Sec 3, IP4)	
Signature:	School:	Date:

##### Team Member 3

Full name:	School Level (e.g. Sec 3, IP4)	
Signature:	School:	Date:

<sup>§</sup> Note that participant(s) of SSEF may be contacted through e-mail for future STEM-related activities or surveys.

**SCHOOL'S ENDORSEMENT**For individual project / team projects with members from the same school

Teacher-in-charge's full name:	Teacher-in-charge's email address:	
Teacher-in-charge's signature:		Date:

**SCHOOL'S ENDORSEMENT**For team projects with members from different schools**For team member 1**

Teacher-in-charge's full name:	Teacher-in-charge's email address:	
Teacher-in-charge's signature:		Date:

**For team member 2**

Teacher-in-charge's full name:	Teacher-in-charge's email address:	
Teacher-in-charge's signature:		Date:

**For team member 3**

Teacher-in-charge's full name:	Teacher-in-charge's email address:	
Teacher-in-charge's signature:		Date:

# ANNEX A – SSEF 2021 CATEGORIES (STATED IN BOLD AND CAPTIALISED) AND THE CORRESPONDING SUB-CATEGORIES

Please visit the website at <https://www.societyforscience.org/isef/categories-and-subcategories/all-categories/> for a full description and definition of the categories and sub-categories.

## **ANIMAL SCIENCES (AS)**

- Animal Behavior
- Cellular Studies
- Development
- Ecology
- Genetics
- Nutrition and Growth
- Physiology
- Systematics and Evolution

## **BEHAVIORAL AND SOCIAL SCIENCES (BH)**

- Clinical and Developmental Psychology
- Cognitive Psychology
- Neuroscience
- Physiological Psychology
- Sociology and Social Psychology

## **BIOCHEMISTRY (BI)**

- Analytical Biochemistry
- General Biochemistry
- Medicinal Biochemistry
- Structural Biochemistry

## **BIOMEDICAL AND HEALTH SCIENCES (BM)**

- Cell, Organ, and Systems Physiology
- Genetics and Molecular Biology of Disease
- Immunology
- Nutrition and Natural Products
- Pathophysiology

## **BIOMEDICAL ENGINEERING (BE)**

- Biomaterials and Regenerative Medicine
- Biomechanics
- Biomedical Devices
- Biomedical Sensors and Imaging
- Cell and Tissue Engineering
- Synthetic Biology

## **CELLULAR AND MOLECULAR BIOLOGY (CB)**

- Cell Physiology
- Cellular Immunology
- Genetics
- Molecular Biology
- Neurobiology

## **CHEMISTRY (CH)**

- Analytical Chemistry
- Computational Chemistry
- Environmental Chemistry
- Inorganic Chemistry
- Materials Chemistry
- Organic Chemistry
- Physical Chemistry

## **COMPUTATIONAL BIOLOGY AND BIOINFORMATICS (CO)**

- Computational Biomodeling
- Computational Epidemiology
- Computational Evolutionary Biology
- Computational Neuroscience
- Computational Pharmacology
- Genomics

## **EARTH AND ENVIRONMENTAL SCIENCES (EA)**

- Atmospheric Science
- Climate Science
- Environmental Effects on Ecosystems
- Geosciences
- Water Science

## **EMBEDDED SYSTEMS (ES)**

- Circuits
- Internet of Things
- Microcontrollers
- Networking and Data Communications
- Optics
- Sensors
- Signal Processing

## **ENERGY: SUSTAINABLE MATERIALS & DESIGN (EY)**

- Biological Process and Design
- Solar Process, Materials, and Design
- Energy Storage
- Wind and Water Movement Power Generation
- Hydrogen Generation and Storage
- Thermal Generation and Design
- Triboelectricity and Electrolysis

## **ENGINEERING MECHANICS (EM)**

- Aerospace and Aeronautical Engineering
- Civil Engineering
- Computational Mechanics
- Control Theory
- Ground Vehicle Systems
- Industrial Engineering-Processing
- Mechanical Engineering
- Naval Systems

## **ENVIRONMENTAL ENGINEERING (EE)**

- Bioremediation
- Land Reclamation
- Pollution Control
- Recycling and Waste Management
- Water Resources Management

## **MATERIALS SCIENCE (MS)**

- Biomaterials
- Ceramic and Glasses
- Composite Materials
- Computation and Theory
- Electronic, Optical, and Magnetic Materials
- Nanomaterials
- Polymers

## **MATHEMATICS (MA)**

- Algebra
- Analysis
- Combinatorics, Graph Theory, and Game Theory
- Geometry and Topology
- Number Theory
- Probability and Statistics

## **MICROBIOLOGY (MI)**

- Antimicrobial and Antibiotics
- Applied Microbiology
- Bacteriology
- Environmental Microbiology
- Microbial Genetics
- Virology

## **PHYSICS AND ASTRONOMY (PH)**

- Atomic, Molecular, and Optical Physics
- Astronomy and Cosmology
- Biological Physics
- Condensed Matter and Materials
- Mechanics
- Nuclear and Particle Physics
- Theoretical, Computational, and Quantum Physics

## **PLANT SCIENCES (PS)**

- Agriculture and Agronomy
- Ecology
- Genetics and Breeding
- Growth and Development
- Pathology
- Plant Physiology
- Systematics and Evolution

## **ROBOTICS AND INTELLIGENT MACHINES (RO)**

- Biomechanics
- Cognitive Systems
- Control Theory
- Machine Learning
- Robot Kinematics

## **SYSTEMS SOFTWARE (SS)**

- Algorithms
- Cybersecurity
- Databases
- Human/Machine Interface
- Languages and Operating Systems
- Mobile Apps
- Online Learning

## **TRANSLATIONAL MEDICAL SCIENCE (TM)**

- Disease Detection and Diagnosis
- Disease Prevention
- Disease Treatment and Therapies
- Drug Identification and Testing
- Pre-Clinical Studies